

# Training College Record.

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## INTRODUCTION.

The President in his address suggested that the proceedings of the Association should be printed, there was a general agreement that this should be done this year as an experiment. There were no funds available for such a purpose, a letter was therefore addressed to the Principals of Colleges asking that each college should guarantee one pound, the response was favourable and the first number of the Record is the result. The question of cost and periodical publication will be discussed by the Committee, and proposals will be submitted to a meeting of members.

There are necessarily omissions in a number prepared at short notice, there should be information and news from the colleges, each issue should contain a resumé of the work done in the Training Colleges of other countries, and there should further be descriptions of actual plans that have proved to be effective. The review of books specially relating to the studies and work of Training Colleges should be a special feature of the Record, but such books should not be confined to English publications.

If the "Record" be issued periodically, the supply of suitable matter will present no serious difficulty.

The Editor is indebted to the writers of papers and reviews, demands have been made upon them at the busiest part of the session, yet they have readily given their services.

M. R. W.

Newcastle-upon-Tyne,  
February, 1908.

## Training College Association.

### *President :*

PROFESSOR MARK R. WRIGHT, Armstrong College,  
Newcastle-on-Tyne.

### *Ex-President :*

REV. H. WESLEY DENNIS, St. John's College,  
Battersea, S.W.

### *Vice-Presidents :*

MISS S. WALKER, Southlands College, Battersea., S.W.

REV. R. HUDSON, St. Mark's College, Chelsea, S.W.

### *Hon. Sec. and Treasurer :*

MR. H. E. GRIFFITHS, St. John's College, Battersea, S.W.

## THE ANNUAL MEETING.

THE SIXTEENTH ANNUAL MEETING was held at the National Society's House, 19, Great Peter Street, Westminster, on Tuesday, December 17th, 1907.

1. The President (Rev. H. Wesley Dennis) took the chair at 10.30 a.m. There was a large attendance of members:—The following officials of the Board of Education were present:—Mr. P. A. Barnett, Dr. Airey, Dr. Newman, and Dr. Eichholz.

2. The Minutes of the last Annual Meeting were read by the Secretary and confirmed.

3. The Report and Balance Sheet for 1907 (see page 5), were adopted on the motion of Rev. Canon Martin and Miss Dunlop.

4. Miss Smith (Whitelands) and Rev. J. H. Hannah were appointed scrutineers of the Voting Papers for Vice-Presidents.

5. The President for 1908 (Professor Mark R. Wright) took the chair.

6. A cordial vote of thanks to the outgoing officers was proposed by Rev. Canon Stevenson, seconded by



7. The President then delivered the Presidential Address (see page 17), for which he was cordially thanked on the motion of the Rev. Prebendary Hobson and Miss Dunlop. It was decided to print and circulate the Address as usual.

8. A discussion ensued on "The Simplification and the Strengthening of the Training Colleges Curricula. (The papers and the discussion appear on page 30).

9. The following elections for 1908 were declared:— Vice-Presidents, Miss Walker (Southlands), Rev. R. Hudson (St. Mark's); Hon. Secretary and Treasurer, Mr. H. E. Griffiths.

10. The proposal of The Teachers' Guild to hold a combined Educational Congress was then brought forward by Rev. H. W. Dennis, who proposed that the matter be referred to the Committee with power to spend what may be necessary in the matter. Carried.

11. The question of the date of the next Annual Meeting was discussed, with the result that the Committee should have before them when settling the date, the fact that the bias of this Meeting was in favour of the corresponding week in December.

12. Professor Adamson moved the following resolution:—*Re* General suggestions, for the practice of Teaching. (New Reg. p. 58.) "This Association earnestly deprecates any endeavour on the part of the Board of Education to impose a uniform system upon the Training Colleges, and respectfully emphasises the necessity in the present experimental stage of training and under the great diversity of conditions, of allowing as much liberty and elasticity as possible to the various Colleges." Mr. W. T. Phipps seconded the resolution and it was carried unanimously.

13. An Address was given by Sir Lauder Brunton, M.D., F.R.S., on "Training Colleges and the National Health." An interesting discussion followed the reading of the paper, in which Rev. R. Hudson, Miss Allan, Professor Welton, and others took part. On the motion of the President, seconded by Miss Bishop, a hearty vote of thanks was given to Sir Lauder Brunton for his valuable paper. (Sir Lauder Brunton's paper appears

student should be received into a Training College directly on the conclusion of his 'Bursary' period without having had some substantial experience (say not less than three months) in the regular work of a Public Elementary School under the direction of the Head Teacher and Staff." The resolution was seconded by Miss Bishop. Dr. Workman, Rev. R. Hudson, Miss Forth, Rev. D. J. Thomas, Prof. Adamson, and Prof. Welton spoke. The motion was carried unanimously.

15. Rev. H. W. Dennis moved the following:—"This Association is of opinion that it is necessary in the interests of efficiency that students before admission to a Training College should have acquired facility in the following exercises:—(1) Clear articulation. (2) Vocal music. (3) Manual instruction and (for women) needlework. The Association believes that the necessary training should be given during the school period when habits are readily formed, and that the function of the Training College is to train students in the application of these exercises in school. The Association feels that this resolution becomes strikingly urgent having regard to the 'Bursar' System." Miss Bishop seconded. A long discussion ensued, and the motion was carried unanimously.

16. It was decided to send the resolutions in Nos. 12, 14 and 15 (a) to the Board of Education, and (b) to the Education Authorities of the Country.

17. The Meeting closed with a hearty vote of thanks to the President for his conduct of the Meeting.

## REPORT FOR THE YEAR 1907.

### *To the Members of the Association.*

Your Committee has pleasure in submitting the following Report for the past year:—

The Association numbers 240 members and 61 Colleges (Residential and Day) are represented.

The Annual General Meeting was held on December 18th, 1906, at the Caxton Hall, Westminster. There were two sessions and the meetings were very well attended. A successful *Conversazione* was held on the evening of December 17th, at St. John's College, Battersea, by kind invitation of the Principal and Council of the College.

The question of classification in the results of the Preliminary Certificate Examination has been further considered by the Committee this year, and the following resolution was sent to the Board in January on the receipt of an unfavourable reply to the Association's request for classification:—"The Association deeply regrets to find that the Board has not been able to grant any concession to the practically unanimous view of the authorities of the Training Colleges. It expresses the hope that the matter, as it relates to subsequent years, will be reconsidered by the Board."

At the March meeting it was again decided to press for Classification (without order of merit) in the results of the Preliminary Certificate Examination.

The Association has also been in communication with the Board with regard to various points affecting the Second Year List such as (a) The discouragement of the all-round Student, (b) The College marks in the practical subjects, *e.g.* Music, Teaching, (c) The varying standard of the requirements in optional subjects.

The question of the value of a Third Year (at home or abroad), apart from the question of completing a degree has been represented to the Board, but the Board could not see its way to alter its regulation.

The new Training College regulations naturally came up for discussion at the October Meeting, and the following important resolutions were forwarded to the Board:—

- I.—"This Association deeply regrets that regulations should have been issued which limit the discretion of the College authorities in the selection of the most suitable candidates for admission."
- II.—"This Association regards it of the utmost importance that the Colleges should retain the liberty hitherto afforded them of interviewing their candidates without any extra charge upon the Colleges. They wish to point out that the interview affords an opportunity for the College medical examination which is obligatory under the Board's regulations, and to which they also attach the greatest importance."

tions, when taken in subjects and of a standard that exempts from the London Matriculation Examination, should be considered by the Board as equivalent to the London Matriculation Examination and judged by the same rules."

IV.—"The Committee notes with satisfaction that the obligations of service underaken by a student in accepting the King's Scholarship are more clearly defined than in former years. (App. B.)"

V.—"This Association greatly regrets the introduction of a regulation rendering candidates admissible to Training Colleges before 18 years of age, and ventures to protest against the action of the Board in introducing a regulation so intimately affecting the social and intellectual life of the Colleges without previous consultation with the College Authorities."

The scheme of the Teachers' Guild for a combined Educational Congress (referred to in the last Annual Report) has again been discussed in Committee, and it was eventually decided to bring it up at the Annual Meeting for final discussion.

It was felt by the Committee that members generally should have an opportunity of voting on the date of the next Annual Meeting, so that this matter will also be found on the Agenda of this meeting.

In accordance with Rule 5, Professor Mark R. Wright was at the March Meeting elected President for 1908.

At the October Meeting nominations were received for the posts of Vice-Presidents and Hon. Secretary. In the case of Hon. Secretary, only one nomination was received. Voting papers have been issued in the case of the Vice-Presidents, and the result will be declared at the Annual Meeting.

In conclusion the Committee cordially thanks the members of the Association for their continued co-operation and support.

Signed, on behalf of the Committee,

H. E. GRIFFITHS,

# **BALANCE SHEET, 1907.**

Options—	£ s. d.			£ s. d.		
	6d.	..	..	6	12	7
Deficit, 1906	..	..	..	..	..	..
Expenses of Annual Meeting, 1906—						
Hire of Hall	..	..	£3	3	0	0
Tea	..	..	..	2	10	0
Expenses of Special						
Speakers	..	..	..	1	9	10
Conversazione	..	..	..	2	12	6
Sundries	..	..	..	1	3	0
Printing	..	..	..	..	..	..
Postage and Office Expenses	..	..	..	..	..	..
				10	18	4
				5	15	1
				4	5	3
				£27	11	3

Audited and found correct,

(Signed) E. C. SIMPSON.

## **RULES.**

### **1.—TITLE.**

The Association shall be called "The Training College Association."

### **2.—OBJECT.**

To furnish opportunities for the discussion of educational problems, especially those relating to the Training of Teachers; and for the expression of a collective opinion thereon.

### **3.—MEMBERSHIP.**

The Principals, and all other Members of the Teaching Staffs of Training Colleges and the Training Departments of other Institutions in which the Course of Training is accepted by the Board of Education for the purposes of "Registration," shall be eligible as Members of the Association.

### **4.—SUBSCRIPTION.**

The Annual Subscription shall be Half-a-crown, payable on the 1st of January in each year. Any Member whose subscription is in arrear for more than twelve months shall, after due notice, cease to belong to the Association.

### **5.—OFFICERS.**

The Officers shall be a President, two Vice-Presidents (one a woman), and a Secretary, who shall also be Treasurer.

**ELECTION OF OFFICERS.**—All of these shall retire at each Annual Meeting, but shall be eligible for re-election. Except in the event of the re-nomination for special reasons of the President, one of the Vice-Presidents shall be elected as President for the succeeding year at the Committee Meeting held in March previously.

The Vice-Presidents and Secretary shall be nominated at the October Committee Meeting.

In the event of there being more than one nomination for each post, voting papers shall be sent to Members of the Association. These must be returned to the Secretary, and the result shall be announced at the Annual Meeting of the Association.



at the March Committee Meeting. The arrangements for this Meeting shall be in the hands of a Sub-Committee appointed for the purpose.

#### 7.—COMMITTEE.

ELECTION.—The Committee shall consist of the Principal or Head of the Training Department of each College, and one Member from the staff of each College. This Member shall be elected by the Members of the Association in the College. The Officers and Ex-President are *ex-officio* Members of the Committee.

VACANCIES.—Any vacancy in the Committee occurring during the course of the year among the representatives of the Colleges shall be filled up by the Colleges concerned, or in the posts of President, Vice-Presidents, and Secretary, by the Committee. A Vice-President thus appointed shall not succeed to the Presidency without the opportunity being afforded to all the Members of the Association to nominate other candidates, and, if necessary, to elect the President by vote.

MEETINGS.—The Committee shall meet at least twice a year, viz., on 2nd Friday in March and October. Ten shall form a quorum.

AGENDA.—Notices of Meetings, with full Agenda, shall be sent to each Member of the Committee seven clear days before the date fixed for the Meeting, together with a complete summary of the proceedings of the preceding Meeting.

All notices of motion for the Annual Meeting must be sent to the Secretary at least four clear weeks before the date fixed for the Meeting.

The Committee shall arrange for the Annual Meeting of the Association, at which a report for the year and a balance-sheet shall be submitted. All Members of the Association shall receive a summary of the business transacted at this Annual Meeting.

Special Meetings of the Association, or of the Committee, may be summoned at the discretion of the President, or by order of the Committee, or on the signed request of not less than 20 Members of the Association.

In the case of any College, if neither of the regular

#### 8.—ALTERATION OF RULES.

None of the Rules shall be altered except at the Annual Meeting, and then only in case there is a majority of two-thirds in favour of the proposed alteration, or at a Special Meeting of the Association convened for this purpose.

In the case of a Special Meeting notice shall be sent to all Members, and no alteration of the Rules can be made unless approved by two-thirds of the Members present.

#### SCHEME OF STANDING ORDERS FOR ANY GENERAL MEETING.

1.—The proposer of a Motion shall be allowed 15 minutes for his speech.

2.—Each succeeding speaker shall be allowed 5 minutes.

3.—All Amendments must be submitted to the Chairman, in writing, with the name of the mover attached.

(A.) Whenever an Amendment is made upon any Motion, no further Amendment shall be taken into consideration until the previous Amendment is disposed of.

(B.) If any Amendment be carried, it shall then be put as a substantive Motion, and then a further amendment may be moved upon it.

(C.) If any Amendment be negatived then a further Amendment may be moved to the original question.

4.—The decision of the Chairman on any point shall be final.

5.—At a General Meeting no Member shall be permitted to speak more than once on the same proposition, except the proposer, who shall have the right of reply before the original proposition or any amendment to the same is put.

6.—Every resolution shall be put to the vote by a show of hands.

7.—Any debate may be closed by a resolution, "That the question be now put" being moved, seconded and



the purpose of proposing such a motion. If an amendment is under discussion, the motion "That the question be now put" shall apply only to that amendment.

8.—The Agenda of any public session, if not finished, shall be taken after the business of the arranged Agenda of any subsequent session has been disposed of.

9.—When an extension of time is allowed to a speaker, it shall be at the discretion of the Chairman, but it shall not exceed five minutes.

10.—No motion to suspend a standing order for the purpose of altering the order of business shall be accepted unless supported by 20 members present. This motion shall be put to the meeting without debate.

### LIST OF MEMBERS.

*The Names are in Alphabetical Order in each College.*

#### Aberystwith (University College):

Miss Gibson.

#### Avery Hill, Eltham:

Miss M. Carter.

#### Bangor (Normal College):

Mr. T. Botting.  
" E. R. Davies.  
" E. H. Harding.  
" D. Harris.  
" H. Williams.

#### Bangor (North Wales Training College):

Rev. Canon Fairchild.

#### Battersea (St. John's College):

Mr. T. Ayres.  
Rev. S. Blofeld.  
" H. Wesley Dennis.  
Mr. H. E. Griffiths.  
" E. Mills.  
" H. H. Pells.  
" W. Taylor.

#### Battersea (Southlands College):

Rev. J. Chapman.  
Miss Harry.  
" Husbands.  
" Smiley.

#### Birmingham (The University):

Miss F. C. Clark.  
" Joyce.  
" E. Sowerbutts.  
Mr. F. Roscoe.

#### Bishop's Stortford (Hockerill College):

Rev. A. E. Murray Aynsley.  
Miss Crook.  
" Gwinn.  
" Holman.  
" Stewart.

#### Brighton (Rose Hill College):

Miss Bell.  
Rev. G. Corfield.  
Miss Marshall.  
" Mockford.  
" B. Mockford.

#### Bristol (Residential College):

Rev. J. R. W. Thomas.  
Miss Gowan.  
" Kay.  
Mrs. Sneyd Kynnersley.  
Miss Roscoe.

#### Bristol (University College):

Mr. T. S. Foster.  
Miss D. Anstance Odell.  
" Pease.

#### Cambridge (Homerton College):

Miss Allan.  
" Bodkin.  
" Carter.  
" Cook.  
" Glennie.  
" Hartle.  
" Jackson.  
" Jameson.  
" Salmond.  
" Varley.  
" Waterhouse.  
Mr. Wilmott.

#### Carmarthen (South Wales College):

Rev. Preb. Brown.  
Mr. H. S. Holmes.

#### Chelsea (St. Mark's College):

Mr. O. Breden.  
Rev. R. Hudson.  
Mr. J. W. Jarvis.  
" A. W. Reed.

#### Chelsea (Whitelands College):

Miss Birch.  
" Clark.  
" Custance.  
" Davis.  
" Fordham.  
" Ivatt.  
" Luard.  
" Smith.

#### Cheltenham (St. Paul's College):

Mr. W. T. Boone.  
Rev. H. A. Bren.  
Mr. C. H. King.  
" T. Lyon.  
" F. G. Perrins.

#### Cheltenham (St. Mary's Hall):

Miss Bridgwater.  
" King.  
" Reynolds.  
" Roberts.  
" Welch.

#### Cheltenham (The Ladies' College):

Miss F. A. Smith.

#### Chester:

Rev. J. D. Best.  
" Dr. Dale.

#### Chichester (Bishop Otter College):

Miss Reatty.

#### Culham:

Mr. J. S. Davis.  
Rev. A. R. Whitham.  
Mr. H. W. Cousins.

#### Darlington:

Miss E. P. Dugdale.  
" J. C. Grenfell.  
Mr. W. A. Spafford.  
Mrs. Spafford.  
Miss C. G. Walker.  
" E. R. T. Whyte.

#### Derby:

Rev. A. B. Bater.  
Miss Davies.  
" Field.  
" Rawlinson.  
" Southall.  
" Ward.  
" Williams.

#### Durham (Bede College):

Rev. D. Jones.  
" T. Read.

#### Durham (St. Hild's College):

Rev. J. R. Croft.  
Miss Fish.  
Rev. Canon Haworth.  
Miss E. Hindmarch.  
" W. Hindmarch.  
" Skinner.  
" Taylor.  
" Thomas.

#### Exeter (St. Luke's College):

Rev. R. H. Couchman.

#### Exeter (Albert Memorial College):

Rev. Prof. Parry.

#### Hammersmith (St. Mary's College):

Rev. Father Byrne.

#### Hereford:

Miss S. M. Smith.

#### Isleworth (Boro' Road College):

Mr. E. Barkby.  
" A. Burrell.

#### Kennington (St. Gabriel's College)

Miss Bishop.  
" Cooke.  
Mrs. Clare Goslett.  
Miss Hele.  
" Houlston.

**Kensington (St. Charles's Square):**

Madame O'Flaherty.  
 " Eaton.  
 Rev. J. Worsley.

**Leeds (The University):**

Prof. J. Welton.

**Lincoln:**

Miss Elwell.  
 Rev. Canon Rowe.  
 Miss Turner.  
 " Vaughan.

**Liverpool (University):**

Mr. J. H. Gettins.

**Liverpool (Mount Pleasant):**

Miss M. E. Bellord.  
 " Winfield.

**Liverpool (Edge Hill):**

Miss Collins.  
 " Cussans.  
 " Gaskin.  
 " Hale.  
 " Lowe.  
 " Perm.

**London (King's College):**

Mr. A. A. Cock.  
 Prof. J. Adamson.

**London (Southampton Street, W.C.):**

Prof. J. Adams  
 Miss Epps.

**Manchester (The University):**

Prof. J. Findlay

**Newcastle (Armstrong College):**

Miss S. E. S. Richards.  
 Prof. Mark R. Wright.  
 Mr. J. M. Forster.  
 Dr. G. H. Thomson.

**New Cross (Goldsmith's College):**

Miss F. H. Birley.

**Norwich:**

Miss A. L. Collard.  
 " E. Dixon.  
 Rev. J. A. Hannah.  
 Miss I. Weatherhead.

**Nottingham (University College):**

Prof. A. Henderson.

**Oxford (Diocesan College):**

Miss Simpson.  
 " Walker.

**Peterborough:**

Mr. H. R. V. Ball.  
 Rev. T. Ward.

**Ripon:**

Rev. Canon Garrod.  
 Miss Goodacre.  
 " Mander.  
 " Newby.  
 " Palin.  
 " Waterhouse.

**Saffron Walden:**

Miss Campbell.  
 " Dunlop.  
 " Mitchell.  
 " Wark.

**Salisbury:**

Miss Allen  
 Rev. Dr. Baker.  
 Miss Forth.  
 " Gardiner.  
 " Grist.  
 " Montgomery.  
 " Newman.  
 Rev. Canon Steward.

**Saltley:**

Rev. Canon Burbridge.  
 Mr. S. W. Coombs.  
 " W. J. Douglas.  
 " H. I. Hobbiss.  
 " W. Miles.  
 " J. C. Walton.

**Sheffield (The University):**

Prof. J. A. Green.

**Sheffield:**

Mrs. Henry.

**Stockwell:**

Miss Doran.  
 " Fisher.  
 " Hutchinson.  
 " Keary.  
 " Liberty.  
 " Mackay.  
 " Manley.  
 " Mavor.  
 " Ridgeway.

**Swansea:**

Miss Grierson.  
 " Rodwell.  
 Mr. D. Salmon.

**Tottenham (St. Katherine's College):**

Miss Austin.  
 " Barnes.  
 " Billett.  
 Rev. W. M. Davidson.  
 " Preb. Hobson.  
 Miss Pallot.

**Truro:**

The Bishop of St. German's.  
 Miss Beavan.  
 " Cooper.  
 " Gee.  
 " Peat.

**Warrington:**

Miss Bell.  
 " Blyth.  
 " Earlam.  
 " Ferriman.  
 " Frodsham.

**Warrington—continued.**

Miss Hackett.  
 " Hilton.  
 Rev. H. A. Lester.  
 Miss Perry.  
 Rev. Canon Stevenson.  
 Miss Timewell.

**Westminster:**

Mr. A. Barriball.  
 Dr. Dunstan.  
 Rev. Dr. Workman.

**Winchester:**

Mr. A. Davis.  
 Rev. Canon Martin.  
 Mr. H. W. Padwick.  
 Rev. R. A. Thomas.  
 Mr. G. H. Turley.

**Wood Green (Home and Colonial College):**

Miss Drury.  
 " Macken.  
 " Pepper.  
 Rev. H. Searle.  
 Miss Stairmand.  
 Rev. D. J. Thomas.  
 Miss Wilkins.  
 " Wood.  
 " Wright.  
 " Young.

**York:**

Mr. W. T. Phipps.  
 Rev. E. E. Nottingham.

**THE FOUNDING OF THE ASSOCIATION.**

Like many other important bodies the Training College Association had very small beginnings. Before its establishment in 1892 the various Colleges scattered up and down the country were isolated units having no cohesion amongst themselves. The Department, as the Board of Education was then called, was always willing to listen to representations made to it, but there was no organized body entitled to speak on behalf of the Colleges as a whole. As a result, changes were frequently made

under which the different Colleges had to work. There was no opportunity for the members of the staffs of the different Colleges to meet together in social intercourse and to discuss matters of common interest.

With the object of establishing a closer bond of union between those who were engaged in similar work and had so much in common, a letter was written to the educational papers by Mr. W. B. Hards, then a member of the staff of the Battersea Training College, asking for communications from those who were willing to co-operate. The appeal that was first made was to those "other than Principals" in the different Colleges, and a very ready response was made. A meeting was held at Battersea of a few representatives of the Metropolitan Colleges. The idea of forming some kind of organization was taken up warmly and its success was assured from the first.

After a preliminary meeting or two it was wisely decided, as events have fully proved, that there were wider interests involved than those which concerned only the subordinate staff of the Colleges, and as a consequence an appeal for support was made to the Principals of the Colleges also. It should be said that from the very beginning several of the Principals had been consulted and they gave their warmest support even to the more restricted scheme.

## THE PRESIDENT'S ADDRESS.

The particular problem before this Association is the training of teachers during a College course, but the issue of the "General Report on the instruction and training of pupil teachers 1903-1907, with historical introduction" suggests that the consideration of the supply and preparation of candidates will be of interest. The report is a valuable contribution and deserves careful study; it is not satisfying, the bias of the writer in favour of the bursar system is too obvious, and the pupil teacher system in its various modifications does not receive either sympathetic or generous treatment; the references that we expect in a blue book are absent and it is therefore difficult to assess the values of the opinions quoted; the history of the pupil teacher system has yet to be written. The report is the plea of a counsel for the prosecution, not the summing up of a judge. Full of defects and limitations the old system for more than half a century supplied English schools with teachers, and it is for the succeeding years to settle whether the Bursar plan, more liberal in its proposed intellectual equipment and necessarily involving a delay in the beginning of practical work, will compensate for the characteristic masterfulness and capacity in the management of large classes, that is so frequently seen among pupil teachers.

The estimate in the report as regards supply will need revising; shortly, the adult teachers during 1905-6 numbered 116,200, it is calculated that this number in 1908-9 will be 131,800; that is an average annual increase of 4.3 per cent. is assumed, of this percentage 0.7 is due to increase in population and 3.6 per cent. represents increase due to the better staffing in schools that began when the Act of 1902 was put in force. I shall be pleased if my conclusions are proved to be wrong, but my investigations show that the special increase in numbers due to improvements in the staff stopped in 1905-6. From the returns I have been able to examine I find that in 1906-7 the rise was slight, in some cases there was even a decrease. The Education Authorities have, it appears, nearly completed their



some difficulty in obtaining appointments.\* If the annual increase be 2.5 instead of 4.3 the number in 1908-9 will be 6,600 less than the estimate in the report, and, consequently, the number that should begin as pupil teachers in 1908, say, will be materially smaller than the 21,000 approximately indicated in the report. Further, it will be a great disappointment if the rise of the bursar system, and the improved condition of pupil teachers does not materially reduce the extraordinary wastage due to incompetency in the examination for the preliminary examination for the certificate. I believe that some local authorities recognize that they cannot absorb their pupil teachers at the completion of their apprenticeship, or at the end of their college course, there is, therefore, a tendency to diminish in some districts the number. The report wisely points out that a large increase is needed (1) to diminish the size of classes (2) to increase the proportion of trained teachers (3) to diminish the number of supplementary teachers. If the Board of Education possessed powers to enforce these claims all would be well, but surely it is notable that with the rise of large education authorities, the power of the Board of Education for healthy coercion has been materially diminished. It is difficult to obtain increased local contributions towards education, and it seems inevitable, that if the three necessary improvements mentioned above are to take place, the Treasury must find the greater part of the money. It did not produce a feeling of confidence to find that the proposals in last year's Code to increase the number of certificated teachers in certain schools, disappeared from the Code of this year.

I conclude, therefore, that while we must endeavour to increase the supply of teachers, this problem must be faced after all parts of the question have been considered, we must shun tendencies to exaggeration, and above all we must avoid the danger of tempting young people to enter upon the work of teaching, to find that at the end of the training there is no employment possible as certificated teachers; this danger will arise if we began yearly, with anything like the number indicated in the report.

We all agree however with the report in the necessity there is for a reduction in the size of classes, no note-

worthy progress is possible until this essential improvement is made. The Act of 1902 has not specially affected the question, the numbers, I know, work out better, but the improvement has been as a rule in country schools, the impossible unwieldy classes remain as before in town schools. The problem is difficult, it means not only increased annual expenditure for teachers, but also large capital expenditure to provide accommodation.

A reasonable system of education involves that the majority of teachers shall be trained, there must therefore be a large increase in the number of Training Colleges. I regret that they are rising in a sporadic way, due more to the importunity of certain education authorities and sects, rather than to the needs of the country as a whole. It was an error to place the provision of Training Colleges on Local Authorities, it was the one piece of work that the Central Authority could have done more efficiently, local contracts with students will be a source of friction, and I do not think it wise to intensify the provincial feeling among elementary teachers.\* I can imagine this Association in another twenty years, observing a struggle going on between the Board of Education and local authorities with respect to the management and conduct of Training Colleges, recent regulations for the establishment of Training Colleges will complicate administration.

I do not wish to prejudice the discussion upon the Bursar system, like the pupil teacher system it over-values intellectual equipment and has little to say either upon health or temperament. More than ever in view of the changes we are introducing into schools, should liking and aptitude be considered. There is a distressing note of weakness in the regulations which state the head teacher is to certify that the proposed Bursar "is not unsuitable to become a teacher"; the despair of the irreducible minimum. The personal qualifications of the bursar, and his aptitude for teaching must have careful and full consideration, unless there is to be a waste of public money.

\* Think of our local pride in a child who attends a Sheffield school until 12, is then transferred to a Sheffield Secondary School, becomes a Sheffield pupil teacher, enters the Sheffield Training College, takes a degree at Sheffield University, and then returns to work in a Sheffield school and spends all



As regards health in schools, I trust we are not about to embark upon an experimental stage in which a fetish is to be made of the teaching of "scientific hygiene." Errors in health are not due to lack of knowledge alone, well formed habits and strength of will are important factors, and of knowledge, that which is based upon the so-called-scientific knowledge is not necessarily the most productive. I would rather trust the conduct of a school to the teacher who has the lust for fresh air, who spends his leisure in cycling, golf or other active exercises, than to the student who has gained many certificates in hygiene, and who has lowered his own health in gaining them.

You will have before you important resolutions dealing with the equipment of bursars. At the risk of infringing upon part of the discussion, I wish for a few minutes to deal with the necessity for some tentative practice in teaching, before admission to a Training College. The Bursar system implies a possible "clean slate," but many colleges will not be prepared to accept that condition. The student teacher regulations solve the question, and if all pass through this stage reasonable conditions will be satisfied. To begin instruction in an art like teaching, to young teachers, from whom capacity under the trying conditions of large classes will be demanded in, say, two years, involves a serious waste of time alike on the part of the instructor and the instructed, unless the pupils have had some tentative experience. We have not made that progress in the principles of education that we have looked for, but it is settled that tentative exercises in an art should precede instruction. The age of Bursars must also be considered, and it is a matter of observation that the Bursar type is younger at 17 and 18 than the pupil teacher at the same age; this is not necessarily a disadvantage, the pupil teacher may have developed too early. I consider that it is essential, that some preliminary knowledge of the ways and routine of an Elementary School, and of the ordinary methods of teaching and dealing with a class, should be acquired before the Training College course begins. Bear in mind that the young teacher, when his training is finished, is to be a craftsman. Such a period is also necessary to

spend further public money upon the Bursar with a view to making him an Elementary Teacher.

To the regret of this Association, the results of the Preliminary Examination for the certificate is apparently to be issued again in alphabetical order. I may discover in the future, a serious-minded and active worker in teaching who believes in the grotesque style in which the list is at present issued; up to the present I have not found the advocate; it remains, and grave injustice is being done. The concession next year, is to be in the direction of giving lists in order of merit to some 80 individual colleges, while declining to issue a list, say, in 10 or 12 groups for the whole of the country. One does not wish to know in such an examination the "distinctions." Obviously the common-sense view is to determine the general condition of the intellectual training and, despite the defects inherent in the plan of adding together marks obtained in individual subjects, in order to obtain a total that will be the basis for classification; it is fairer, it is more easily understood, and it recommends itself to the common sense of the workers. The grosser errors are eliminated by a classification in groups.

Our Association includes by far the greater number of Training Colleges in the country, and if we deal with real questions we shall do service alike to education and to ourselves. I do not think however that our organization is yet perfected, we have been accustomed to confine our deliberations to the amending of regulations in force, it is time we attempted constructive work, the debate this afternoon on the Simplification and Improvement of Training College Curricula is a step in the right direction. We can further do useful scientific work in recording what is being done in our colleges, we are wofully ignorant of the procedure in colleges other than our own, nor is it easy to find out the methods and plans of fellow workers, in fact I know with greater definiteness what is going on in French and German Training Colleges, than I know the practices of the great London and Provincial Colleges. This Association can spread the necessary information. It may mean an increase in subscriptions, but it will intensify the interest and usefulness of the Association. Remember that it is not

always London? a two or three days' meeting at Buxton or Keswick would be a welcome change), they should, however, have a record of the proceedings of the Association. These considerations suggest that a publication limited in character, in which our deliberations could be recorded would be a valuable help to our work. I do not think the scheme at all visionary, and probably a specimen number could be issued by the aid of voluntary contributions. Might I also suggest that colleges near each other should combine and meet to discuss subjects of interest to the staff in general; many of the subjects before us are administrative and attract the serious attention of heads of colleges rather than of the general members, and I fear the lecturers of colleges are in danger of being isolated in their respective districts.\* This Association would do a real service if it could bring into being such local meetings.

The great development of colleges that is imminent, the far reaching changes that appear in recent regulations and proposals, indicate that in the next few years this Association will have an important part to play in guiding opinion, the more reason that we should include as many as possible within our pale. It is a time for unity not for separation. The history of the Association made it inevitable, that its work should primarily involve administrative questions, and also that the majority of its members should be representatives of Residential Colleges, it welcomes however the staffs of Day Training Colleges connected with University Colleges, and it will further welcome the members of the new type of Municipal Day Colleges. The Association should include or join with the lecturers and others connected with Training Colleges for Secondary Teachers. Great harm has been done by the cleavage between primary and secondary teachers, many of the reasons for this cleavage do not exist in the case of the staffs of colleges for the training of teachers for primary and secondary schools, and I look forward to an association that will include all types, and that will allow sections with distinctive interests to meet when necessary. Such an association would influence alike educational movements and its members.

## TRAINING COLLEGES AND NATIONAL HEALTH

BY SIR LAUDER BRUNTON, M.D., D.S.C., LL.D., F.R.C.P., F.R.S.,  
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I feel greatly honoured by being asked to address the Training College Association to-day, because the subject involved, namely, National Health, is one of the very highest importance, and the Training College Association is one of the most powerful agencies in obtaining it. It is said that Dr. Busby, Headmaster of Eton, was accustomed to boast that he was the greatest man in the kingdom, because, said he, "The fathers rule the country, the mothers rule the fathers, the boys rule the mothers, and I rule the boys." There might be a certain amount of exaggeration in his statement, but it, nevertheless, contained a great amount of truth; for the schoolboys of to-day will be the taxpayers, the voters and the legislators of fifteen or twenty years hence. The ideas they hold then will constitute the public opinion which will determine social, religious, and legislative action. Upon the ideas held by them then, will hang the fate of the country, and it is, therefore, of the utmost importance that the training which the school children now have should be of the best possible kind, so that later on they shall think and act aright. It is difficult, then, to measure the influence which teachers can exert upon national thought, national prosperity, and national health.

We are so accustomed to use the word 'health' that we are sometimes apt to overlook the full extent of its meaning, which is that of being whole, free from any crack, flaw, or defect. Health is of the utmost importance to the individual, to the family and to the nation. It is important to the individual because it frees him from discomfort and pain, it enables him to work and to enjoy life and prevents the depression, sorrow or misery which inability either to work or play is sure to entail. It is important to the family because it prevents the sadness or sorrow that a sick member causes to the rest. It prevents the anxiety which a diminished income and increased expense consequent upon illness, is apt to

nation because lack of health means less work and, consequently, less income to the country, and along with this there is increased expense, some of which is met by voluntary aid, as in hospitals, and some of which is levied by compulsory rates to provide workhouses for those who are unable to work for wage, or for premature paupers. Want of health weakens the country by lessening the numbers of those who are able to defend it, and in this regard we see the importance of the old meaning of the word 'health,' because a very large number of would-be recruits are rejected, not on account of their suffering from active disease, but because they are not sound, not whole in respect of their teeth or eyesight. More than this, want of wholeness swells the numbers of the criminal classes who prey upon the more respectable members of society. On a visit to Broadmoor, Surgeon General Evatt found that a very large proportion of the inmates had become criminals, because they had been rejected from the Army for the defects above mentioned, and having no other means of support were obliged to turn to crime for a livelihood.

The question of how to prevent these evils has been for some time past engaging the attention of the country, and there is a general consensus of opinion, that the first step in the right direction is proper care of the health of children. A few months ago a Bill was passed to provide for the medical inspection of children when they enter school, and at such other times as might seem necessary. Medical inspection is the keystone of all schemes for improving the physique of the nation, for until the deficiencies in children have been discovered, it is impossible to correct them, and well-meant endeavours to increase the strength of children by physical training without medical inspection, are quite likely to do more harm than good.

Within the last few weeks an excellent memorandum on the subject of medical inspection has been issued by the Board of Education. This memorandum may not meet with universal assent to all its details, but it is in the main very good and I wish to quote here one passage the truth of which I think no one will question.

"The Board are convinced that the work of medical inspection cannot be properly accomplished by medical men without assistance. The teacher,

ultimately upon the cordial sympathy and assistance of teachers. Some authorities will find that the teachers are able to undertake without undue strain a share of the work of furnishing data respecting each child, and even perhaps to carry out some portion of the inspection, and it is clear that the successful application of the principles of hygiene to school life will depend almost entirely upon their efforts. What the mother is in the home, the teacher is in the school."

But it is clear that in order to render such assistance in the work of medical inspection, as the Board of Education here contemplates, the teachers must have a certain knowledge of the conditions of health and of the indications of illness.

On turning to the regulations for the training of teachers in Training Colleges, we find notices of what the Board of Education desires. The two years' student must study elementary science including hygiene and the principles of teaching including the care of children. The third year students must of necessity have gone through this course, and a one year student must have a knowledge of the subjects. The kind of knowledge required is to be found in Appendix C. of the Regulations. No scheme of elementary science is as yet prescribed by the Board, but the kind of knowledge of hygiene is indicated in the Syllabus for the Principles of Teaching. There we find that teachers are to study the physical health and physique of the scholars, and the means of maintaining it, the signs of distress and fatigue, physical or mental, the methods of detecting and dealing with physically and mentally defective children and the use of games as physical training. Teachers will readily be able to give assistance of the most valuable kind in medical inspection, by noting amongst the children their size as compared with their age, their shape, whether straight, crooked or bent, their condition of plumpness or emaciation, their colour, sallow, pale or rosy, their cleanliness and their clothing, which indicates the nature of their homes, the persistently open mouth, which is an evidence of adenoids, the frown which is often associated with headache, the screwed up eyes which accompanies short sight, the movements of chorea and the condition of the teeth. All these things will be obvious at a glance, but in the course of the classes, the teacher will notice whether the child is alert or stupid, and it is to be remembered that apparent stupidity is



explanation which the teacher gives, or does not see the diagram on a board or even the print of its lesson book. In play, the teachers will notice whether a child is short of breath or whether it is quite unable to run about like its fellows, or whether it may seem simply lazy, and it is to be remembered that laziness in a child is an unnatural thing and may very likely be the indication of serious disease. I have known of a child being regarded by its parents, its brothers and sisters as lazy and cross, and for these supposed faults the poor child was punished, but when taken to a doctor it was found to have serious heart disease which rendered it incapable of playing like the others, and irritable when they pressed it to join in their games. It is quite possible that I may be mistaken, but I think that the measurements of children, at least their height and weight, could be perfectly well taken by two or three of their fellow pupils. In some respects children are much more accurate than grown-up people. Many of you know the catch questions:—Who was the first man? Adam. Who was the first woman? Eve. Who killed Cain? Many a grown up person will answer Abel, but you will rarely or never find a child tripping. It almost invariably detects the catch and replies that nobody killed Cain.

In addition to noting the condition of the child, as a preparation for medical inspection on its entrance to school, the teacher must learn to observe alterations in the child's conditions during school life, such as the aggravation of any of the defects already noted and the occurrence of inattention, listlessness, languor, apparent inattention or irritability; the occurrence of stooping or of awkward positions, or the onset even of a slight cough, for all these may indicate the insidious approach of serious disease.

In addition to the help which the teachers can give to medical officers in inspecting, and the assistance they may afford in preparing an anthropometric survey, one of the most important duties is to teach the laws of health to the children themselves, because it is the ignorance and apathy of people which form one of the most serious hindrances to the improvement in health and physique of the nation. How are these laws of health to be taught? There are two methods of teaching hygiene;

affording good mental training and so useful as a means of education, but not having, as far as the child can see any bearing on its daily life.

The other way is to awaken the child's interest; to ask it why it feels warm; to show it that something burns inside just as in a locomotive, that instead of iron wheels its movements are carried on by muscles and bones. To teach it how these are made to act together in standing up or in playing cricket, to teach it the nature of food which supplies fuel and materials for repair. To teach it how the food is made available for the uses of its body, and carried to the part by the blood; while air enters the lungs and maintains the temperature and power, just as the draught which goes into the furnace of a locomotive. But even when taught in this way, by engaging the child's attention and leading it to ask questions before any answer is given to them, to make the child wish to learn instead of cramming it with dry facts, the teaching is, nevertheless, apt to be ineffective unless it is accompanied by a demonstration.

Many years ago I attended a course of chemical lectures given by the late Lord Playfair, and amongst the few parts of them that have remained firmly fixed in my memory is my recollection of his demonstration, not merely of his statement, that you can generally tell from the way in which a man washes his hands, whether he has been born in a part of the country where the water is hard or soft. For the man is apt to retain the habits of the child, and if the water is soft, he washes his hands with soap in the water in the basin. If the water is hard, he dips his hands into it repeatedly and washes his hands with the soap out of the basin, only using the water to remove all traces of the soap. This fact being once fixed in my mind the explanation has always remained attached to it, namely, that soft water dissolved soap without forming any precipitate, but that the lime in hard water forms an insoluble lime soap, which will not wash the hands and one is obliged to rub the soap outside the basin. If one looks into it afterwards one sees a thick curdy disagreeable-looking scum, which is the lime soap formed by the hard water. Such an illustration as this will exemplify the kind of teaching



answer perfectly for dolly; the child's imagination supplies all that is necessary, and with them the children might be taught how to wash dolly, how to feed dolly, how to care for dolly and how to dress dolly. It seems to me that telling children to sew a piece of calico without any object, is a task better adapted for a prison cell than for a school room, but if the children are taught to cut out and sew clothes for dolly, it becomes a pleasure instead of a pain, and the learning is of the most thorough character.

It would be difficult perhaps, to teach the care of the teeth in a dolly's class, but this is easily done on the child itself. It is hard to say what is the cause of the defective teeth of the present race, but whether it be a cause or merely a coincidence, I think there can be little doubt that teeth are more defective of late years, since the importation of meat from abroad and its more general consumption at home. Fibres of meat are more apt to stick between the teeth than particles of the bread and afford a better nidus for the micro-organisms which lead to decay. A good deal has been said about the use of the tooth brushes amongst children, but it is apparently often forgotten, that the tooth brush only cleanses the back and front surfaces of the teeth, the very parts which are naturally kept clean by the movements of the lips, cheeks and tongue. It is the space between the teeth which the tooth brush does not cleanse, where decay is most apt to begin, and particles of the food lodging between the teeth are much more readily removed by a toothpick than by a tooth brush. But even if the tooth brush were everything that could be desired to prevent dental decay, the expense of it is prohibitive to many poor children. Sixpence for a tooth brush would be equivalent, in many cases, to dinner for a week, and poverty-stricken households cannot afford such a sum. The proper instrument for cleansing the teeth is one which shall be harmless, efficacious, and above all cheap, and such a thing is at hand in every house in the shape of a lucifer match that has been already used. The end of it simply requires to be cut into the shape of a wedge, and this can be employed either for the purpose of scraping the surface of the teeth or for removing particles of food from between.

that, although it does not strictly belong to the purpose of my address, I may perhaps be pardoned for mentioning an easy way in which the pain may often be removed. Toothache is often caused by the secretions in the mouth becoming acid and biting upon an exposed nerve. If they are rendered alkaline, by washing the mouth out with a weak solution of bi-carbonate of soda, the toothache will often disappear instantaneously. The results which may be hoped for from a medical inspection and teaching of the laws of health to the rising generation, are very great indeed. We may hope that infant mortality would be very greatly diminished, that the tubercular affection of the joints will be recognised, while it is yet time, and that the number of cripples will be very greatly reduced; that the physical deterioration will be averted, and that the next generation will grow up stronger and healthier.

I must not conclude without touching upon the question of alcohol, and the instruction to be given to children in reference to its injurious effects. There can be no doubt that the abuse of alcohol is one of the greatest evils in the country, but it seems to me that in teaching children about it, we must be very careful not to overstate the case and to avoid training a child to despise its parents. My own belief is that the craving for alcohol is, in the majority of cases, due to insufficient food, an ill-balanced nervous system, or physical weakness, and if we can teach the next generation how to cook dishes that shall be tasty, as well as nutritious, if we can teach them the conditions of ill-health and how they are to be avoided, and those of health and how they are to be attained, the alcoholic question will, to a great extent settle itself; the country will become more sober and more virtuous as well as more healthy and wealthy.

## THE SIMPLIFICATION AND THE STRENGTHENING OF THE CURRICULA.

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Some suggestions for changes in the Curriculum for Infant Teachers and Teachers of Junior Classes in Girls' Schools.

By Miss J. M. DUNLOP.

The Curriculum is still too crowded for the healthy growth of our students either as teachers or learners.

Within the next three years we may expect the majority of our students to come to us with a wider and more solid general education, acquired at greater leisure and with fewer interruptions than in the past. Much of the work that we now do in the Colleges in English, History and Geography, Mathematics and Elementary Science will have been done during the Secondary School period. I would, therefore, suggest that the Training College Curriculum should be further curtailed on its academic side and extended on its professional side.

On the academic side every student should select one subject for a more exhaustive and more critical study than is possible at present when so many subjects demand attention. This might be either English Language and Literature or, if the student knows enough English and French, a combined course of English and French Literature or it might be a branch of physical science, or mathematics or indeed a variety of other alternatives, the limiting factors being the student's taste and previous knowledge and the power of the College to supply the teacher. Assuming that there are forty hours in the week for lectures and study together let a third of this, say thirteen hours, be given to the subject selected. The greater part of the time would be spent in independent study in which the student would learn to deal with the matter of her subject, how to work out problems connected with it and how to express their solution in clear and effective written language. The

Such a course pursued steadily for five out of the six terms of the two years should develop the student in the direction in which her capacity is greatest, should give her a feeling of self-confidence, an increased self-respect and a settled interest and habit of thought which would keep her a student in one direction at least after she is immersed in the business of teaching.

A school staffed with teachers, each of whom had an intimate acquaintance with one branch of knowledge, would tackle new problems and keep pace with modern thought on educational questions more readily, would be less afraid to try experiments, more discriminating in carrying them out and better able to deal with its own mistakes.

The remaining two-thirds of the time should be given to the professional side of the Curriculum. This should include a series of lessons and discussions on the matter of every subject commonly taught in the Infant School and the Junior Classes of the Girls' School, with the best ways of presenting it to children. Stories and poems for young children should be collected and compared to find out which are best suited for the different stages of the child's life, and what had better be omitted at one stage and added at another. The art of telling a story in prose and verse should be practised. The legends of history, the lives of great and attractive heroes, the manners and customs of other times and other races, the best sources for this information and for suitable illustration of it should be considered in connexion with early history lessons. A study of the weather, the surface of the earth, and the lives of some plants and animals would be involved in considering the ways in which children may be made interested and accurate observers of nature. Early lessons in Arithmetic and in the elements of Geometry should be worked out, and it would be found helpful if in this connexion time could be found for learning something of the history of Arithmetic. Lessons in Singing and Drawing should be directed, not only to develop the student's power to use voice and pencil but also to determine the best means of developing children's power in these directions. Children's songs should be

Various forms of Handwork should be practised that the student may realise what children can be led to shape in sand, clay, wood and weaving material. While each student should learn by use something of what can be done with all these, she might with profit select one to illustrate its possibilities and her own inventiveness more fully.

The History of Education should give the student pictures of school life at different times and in different countries; it should tell us what children learned and how they learned it, the games they played, the sins they committed and the punishments they suffered. It should be chiefly concerned with tracing the development of method applied to the teaching of different branches of knowledge, and it should not omit to tell us the means that have been used to fashion right conduct. It is, for instance, very helpful to follow Pestalozzi from Stanz to Burgdorf, from Burgdorf to Yverdon noting how his methods of teaching and disciplining his pupils were elaborated and modified by experience and change of circumstances, and it is of much more importance to know this than to know that he wanted to "psychologize education."

The characteristics of children, physical and mental, would be studied in connexion with the matter and method of instruction and the practical work in the school, but there should be some special discussion of the results arrived at by modern physiology and psychology.

A course of Hygiene in its relation to life in the classroom, and to children's games and physical exercise would be needed to help the teacher to secure the healthiest conditions for activity.

Teaching exercises such as practice in the arts of questioning, describing, explaining and narrating; the observation and discussion of specimen lessons and the giving of lessons to children should occupy some part of every week that the student may be kept closely in touch with the problems of her profession.

Continuous practice in teaching a class should be left till the last term of the student's course. During this period she should get practice in at least two classes of different age. This would help her to realise differences in mental development and the need for corresponding

## The Curriculum and the Technical Training of Women Students in a Residential College in a city or large town.

By Miss S. WALKER.

No one connected with an ordinary elementary training college is satisfied with the technical preparation of the students for their work in the schools, and the time has come when this question should be faced boldly.

Twenty, even ten years ago students came to the training colleges, after an arduous experience as pupil teachers, quite convinced that they knew how to teach but equally certain that, as far as the subject matter of teaching went, they knew little. From their training colleges they hoped to get fairly sound teaching in the ordinary subjects of a secondary school course, and at the same time sufficient practice in class management to prevent them from forgetting the tricks of the profession. Outside classes for the continuation of general education were few and far between, except so called science classes, and an ambitious student felt that, from the training college course, she must get her stock of subject matter. Naturally the theory of teaching, and especially the practice of teaching under those conditions, formed a small part of the work of the training college. The utmost the most enthusiastic lecturer in education could do, was to try and get her students to look at the work of teaching from a somewhat different point of view. The special emphasis placed on subject matter has developed into the policy of preparing the best students for University degrees, and in spite of all possible safeguarding, in the matter of giving degree students the same amount of school teaching as is given to the ordinary student, the fact remains that such students have not, in a two years' course, minds sufficiently at leisure from their academic work to become thoroughly interested in the preparation for the work in life.

Times are, however, changing rapidly: students need not depend on the training colleges for all the teaching instruction they are likely to get in subjects. Evening classes, on the broadest lines, are being organised by nearly every Education Committee, and a young teacher has every opportunity of continuing her general education at the close of her college course, and often on wider



better prepared academically than was the case five or six years ago, and this will be more and more evident during the next six or seven years, for students will be drawn from the pupils of secondary schools who have had the advantage of a high school course of three, four or five years. On the other hand they will have had little or no opportunity of teaching. It is to be expected that they will come into the colleges quite open minded with regard to school work and its possibilities. At any rate they will not have developed habits which have to be eradicated before progress in real educational work can be made. They will be ignorant of the first things in class work, but it ought to be an intelligent ignorance. Obviously such students will need to devote a good deal of time to school work if, at the end of two years, they are to rank as trained teachers. I am not at all sure that, even at the present time we are not getting in our colleges students, who, although they may have passed through a so-called pupil teachership, are quite as ignorant as non-pupil teachers of actual class work, and who must therefore have been wasting precious time somewhere which might have been spent in the school-room as pupils. In other words the problem of the student quite unexperienced in teaching is with us already. This problem has its stimulating aspect.

Meanwhile another change is making itself felt—a vague kind of general dissatisfaction is being expressed on every side with the products of our elementary schools. The public has asked for certain things from the schools, *e.g.*, regular attendance, that children should learn to read fluently if not intelligently, that “boys and girls should exercise a pretty ingenuity in the manipulations of arithmetical symbols,” and a quaint kind of deftness in dissecting complex sentences, etc., and now the public is not quite satisfied with what it has asked for. It is beginning vaguely to demand other things such as a race of healthy children possessing resourcefulness and initiative among the least of their virtues. With these more or less vague demands the public acknowledge that teachers must have “greater freedom of choice in the matter of curriculum, and more generous liberty in the field of experiment than they have enjoyed.” For such work we want obviously the wisest, most alert, most intelligent race of cultivated men and women

need no longer be mainly secondary schools, they must fit themselves to become a kind of laboratory where economic and educational needs both of the present and the immediate future are analysed and forecasted, and in which men and women are prepared to go into the schools to use all the intelligence and sympathy of which they are capable to develop a new generation morally, physically, and mentally fit.

The problem is a practical one. Training colleges are being given the chance to become training colleges in reality. Preparation for the specific work of teaching is being asked of them. The kind of student entering the college, and the kind of work which will more and more be demanded of the student leaving the college, points to this.

Meanwhile the Board of Education still lays down a considerable curriculum for the students. We are still expected to carry on their general education, and to cover a fairly wide syllabus in each subject. The Board tries to safeguard each subject by emphasising the idea that each tutor in the training college should teach her subject from the point of view of the student's work later in the school. But this cannot be adequately carried out until tutors and students take such work into the schools, and actually experiment with classes of children week by week. Such work needs careful organization and much time. But with syllabuses so full as they are at present this practical side of the work is often neglected.

A compromise between the academic work and the technical training is at present all that can be hoped for, but may we not look forward to better things in the near future. Students need more than ever they did to leave the colleges prepared to grapple with classroom difficulties intelligently. Headmistresses seem to demand more from a young trained teacher fresh from college than was formerly the case. They seem to be given in many schools the most difficult classes, and the work which older and more experienced teachers shirk. Is it fair to label them trained after a period of six weeks' teaching in two years' course? Can we do more in the colleges to fit them for their work?

Would it be possible to devote the first four terms of the two years' course to academic work, with perhaps



to devote the last two terms of their two years' course to definite, practical, and theoretic training in teaching? Syllabuses would have to be shortened somewhat, but it might be remembered that in preparing courses of lessons in English, Arithmetic, Geography, Science, etc., students would be learning all the time, and especially learning how to use books and libraries—they would be students all the time. If the last two terms of a two years' course, *i.e.*, January to July, were given up to training in teaching it would be advisable for the students to be examined in their four terms' academic work in December. If the Board of Education would agree to this—and an adequate examination could be finished in three days—the results of the examination would stand to the student's credit in her final certificate which would be granted after her examination in the theory and practice of teaching at the end of her five months' training.

Colleges in which there were University students as well as ordinary two year students could arrange adequate technical training for *sets* of such students without much difficulty, if it were understood that, in such colleges, students should only be prepared for an Intermediate Arts and Science examination if they are able to sit for it at the end of their first year in college. This is surely reasonable from many points of view, and chiefly because it is a most uneconomical arrangement in an ordinary training college where two year students are taken to allow the time and energies of two or three tutors to be given up to training a few University students when there are numerous colleges and Universities equipped for such work. Then from January to July second year students would be occupied with school observation and practice, say on three full days per week, and with method and discussion classes in college two days per week, and further work in drawing, singing, and some form of hand work on one half-day per week. That is, in these two last terms at college students would be carrying on their professional training on somewhat the same lines as students in the best of the training colleges which prepare for secondary work.

There are innumerable difficulties in the way of such a plan, but the chief ones are surmountable, I think,

students, *i.e.*, 70 in each year:—from January to July 70 of these students would be observing and teaching in schools for at least  $2\frac{1}{2}$  days per week, *i.e.*, 35 students would be in certain schools from Monday to Wednesday, and 35 other students from Wednesday to Friday. Ten school departments or even fewer would be sufficient for each set. To lessen the pressure on the school it would be well to have two sets of nine or ten schools so that the students practising from Wednesday to Friday were in a different set of schools from those practising from Monday to Wednesday. In London and other cities it would be necessary to get the interested co-operation of the county and city council officials, but this would not be difficult for they will readily see that the supply of good teachers largely depends on the adequacy of the opportunities for training given to students. Then with regard to head teachers and assistants it is easy to interest them in the work of training teachers. In the first place, it is understood that the schools chosen are those possessing certain excellencies in organization or methods; and in the second place, Headmistresses seem to believe that assistant teachers are put on their mettle by being given the charge of students in training. Again, if students were able to attend the schools every Monday, Tuesday, and Wednesday morning for a period of say, 20 weeks—it would be a good plan to give certain subjects—after adequate time has been spent in observation to the students, and to make them responsible for the subject. The lecturer in the college in these subjects would, as far as possible, supervise such students at work. These subjects could be varied as the weeks go on, *i.e.*, one student who has taught history and geography in Standard II. for ten weeks, might, with advantage, take a course of Nature Study lessons with Standard VI. However, it would be a waste of time to detail in too great degree the possibilities of such a plan, they are obvious to every organizer of practice work. It is sufficient to indicate here that those students who were in school for one term from Monday to Wednesday should be in school during the second term from Wednesday to Friday.

The question of adequate supervision and of the students in schools, and the superintendence of the theoretical work carried on in the college would, I think,

education department, had only to carry on first year students' work they would each be able to devote from one to even three days a week to help in the technical training work. It goes without saying that such lecturers should be women who are not only sufficiently qualified on the academic side, but each of them should have had as varied an experience as possible in actual class work, and should possess a diploma in teaching. We need to do away with that anomaly in a training college—a mistress of method—every lecturer should be a mistress of the method of her own subject. But for a college of 140 students, two people fully qualified to direct, organise, and superintend the technical training of students are necessary. At any rate this is so at present, when infant and girls or mixed school teachers are trained in the same college. Given a general staff of eight or nine people, two of whom are in charge of the training work, and four or five of whom would be able to spend during the training period from one to three days per week in the schools, there would be at least three people each day to supervise the 35 students at work, and often four or five. In this connection another idea might be developed if time permitted, and that is the advisability of allowing two or three enthusiastic old students, who have been fully fledged teachers for four or five years, to return to the colleges to help in the supervision and discussion work for five months, and to give them opportunities for further study of education with the idea of fitting them for more responsible posts in school work. If the councils, who permitted the college to use their schools to train students in, would staff those schools with the best possible teachers, and give such teachers the position of critic teachers with a slightly higher scale of salary, and more chances of promotion as is done in some cities in America, it would not be difficult for old students to give themselves such advantages as a further short period at their colleges.

The advantages of a five months' training to students would, I think, be invaluable. They would begin their lifework fresh from their training, and they would have had time to face in a more natural and easy way many of the difficulties which almost break the spirit of a student fresh from a training college course. They would have been students all the time, and, especially

At the same time the course will have been too short for them to have adopted stereotyped ways of dealing with children and school problems, and the result would be that a stronger and more intelligent set of young people would be turned into our schools to grapple with the innumerable situations to be found there, and fewer good teachers in embryo would be hopelessly spoiled than one fears is the case at present.

### Curriculum of Women Students in Residential Colleges.

By DAVID SALMON.

These hasty notes relate only to the Curriculum of women students in Residential Colleges.

I think that the present Syllabus is good. Compared with the Syllabus of, say, ten years ago, it is excellent, and I would rather see it remain unchanged than see it changed by the introduction of the dozen subjects on the teaching of which we are assured by a dozen sets of enthusiasts that the happiness and prosperity of England and her place among the nations depend. I do not want our students to die of indigestion contracted through eating too many patent digestible foods.

But though I think that the present Syllabus is good I do not claim the distinction of being the only Principal who does not think that he could make it better.

(1) The course in Mathematics (the first two books of Euclid and Algebra to quadratics of one unknown) is sufficient for a minimum, but I find that about half my students have gone through it before admission. To keep them marking time for two years is unjust; to ask them to march on when they know that they shall get no official credit for progress is discouraging.

I do not advocate making a wider course compulsory, but I suggest an extended optional course for those students who are prepared to follow it. A minor distinction might then, perhaps, be given for a pass in the compulsory part, the major distinction being reserved for a pass in the optional part.

(2) I do not want to reduce the time given to Science, but I do want to see that time more profitably employed. Nearly every pupil-teacher spends a couple of years at General Elementary Science; nearly every pupil in a secondary school spends a couple of years at it also, and

entering College. To ask her to spend still two more years at it is so absurd that an alternative Syllabus is already allowed for the more advanced students. Why not substitute in the case of all students that Hygiene in which, for the present, salvation most seems to lie?

(3) I should like to see practical Needlework abolished. Most of the girls are good needlewomen when they enter and so do not need further instruction; the further instruction which they get in College is too brief to benefit much those who are not good needlewomen. If the Needlework in the Syllabus of the Preliminary Certificate Examination is not sufficient, add to it, and then let the candidates have done with it. But while I would abolish instruction in Needlework I would retain instruction in the teaching of Needlework.

(4) Reading connotes both studying the meaning underlying the words of an author and pronouncing those words aloud. The first should be under the direction of the teacher of Literature and the second under the direction of the teacher of Elocution. The books most suitable for the first are not necessarily those most suitable for the second. Even if they were they are so many and so long that half of them cannot be properly read in the second sense.

I would suggest that Elocution be made a subject apart. Plays admitting of variety of expression and declamatory poetry could then be substituted for Bacon's Essays, Utopia, the Memoirs of Colonel Hutchinson, the Letters of Dorothy Osborne, Swift's Conduct of the Allies, and Darwin's Voyage of the *Beagle*,—all interesting to the student of Literature but none suitable to the young elocutionist.

It seems to me that the present Syllabus is like a well-stocked library; room for something new can be made only by taking out something old. While therefore we may tolerate or even welcome substitutions we ought to resist additions. Personally I am satisfied with the Literature and the History, and consider the co-ordination of the two excellent; the time given to Education must not, and the time given to the Music can not, be reduced; the Drawing scheme is practical and far superior to the foolish Free-Hand, the useless Practical Geometry and the practically useless Perspective of South Kensington. The changes which I would like to

## A Curriculum assuming that the student has received a Secondary School Education.

By T. RAYMONT.

(1) The problem of the Training College Curriculum has always been complicated by the fact that the school education of the students has varied greatly in quality and extent. Unless and until the average student has received a secondary school education, or its approximate equivalent, I do not think there is a strong case for seriously modifying the present Curriculum. But it seems to me that the time ought rapidly to be approaching, and perhaps has almost arrived, when the assumption that the average student has had such an education may justifiably be made. It is upon this supposition that the following suggestions are founded.

(2) The question of questions, in my judgment, is the relation of the general and the professional studies. To put the matter more precisely, the time has come for asking to what extent a student in a training college should be pursuing studies of a general character, in the sense that he is engaged upon material with which, as an elementary school teacher, he will not be called upon to deal.

(3) This point is perhaps most aptly illustrated by the case of students who definitely intend to teach in Infant Schools. Are such persons, it may well be asked, *most appropriately* occupied in studying, in considerable detail, the geography of the United States, the history of the Tudor Period, Burke's Speeches, or Milton's *Areopagitica*? Is it not easy to suggest various other ways of spending these short and precious two years, which would tend to make such students more effective contributors to the welfare of small children?

(4) But the problem is not less pressing in the case of those who intend to teach in boys' and girls' schools. Students are too largely occupied in continuing or revising their secondary school studies, and too little occupied in gaining a thorough acquaintance with the theory and practice of teaching the actual matter of the elementary school Curriculum. For example, it is not important that *every* man who intends to teach in an elementary school should master the binomial theorem.



elementary school. To put the same point in terms of text-books, a training college student is less usefully occupied upon the later chapters of an ordinary treatise on algebra than upon such books as D. E. Smith's *Teaching of Elementary Mathematics*, or Dewey and McLellan's *Psychology of Number*. Studies of the latter kind are now almost crowded out.

Similar remarks apply to other branches. It is not important, for example, that *every* student should make an elaborate study of certain difficult English classics, but every student should make an elaborate study, from the teacher's point of view, of such literature as can be used in the elementary school. It will be found on examination that the fare thus provided would be by no means scanty or illiberal.

The average elementary teacher will never be got to take a highly intelligent interest in reformed methods of teaching until the training colleges have the chance of doing thoroughly such work as I have now illustrated, *i.e.*, until a large portion of the student's time is devoted to the pedagogic treatment of the knowledge which he has acquired at school, and which he will presently have to impart to others.

(5) But, it may be asked, would not a programme conceived on these lines tend to narrow the outlook of the elementary teacher? Even supposing that he comes to college after having passed through a respectable course of secondary instruction, ought he not, for his soul's sake, and indirectly therefore for his profession's sake, to continue his general studies? Most certainly. But you do not attain the result you desire by causing him to distribute his energies impartially over English Language and Literature, History, Geography, Mathematics, Science, and perhaps Languages. He has arrived at the stage when specialisation is necessary to true edification. He should continue his secondary school studies on one, two, or (possibly) three lines, according to his ability, his attainments, and the amount of his previous experience in teaching. And these lines might correspond roughly, let us say, with the present "optional subjects." These are the only general studies which are really appropriate in a training college.

(6) In the case of students preparing for university degrees the degree courses would take the place of these

complete preparation for a degree, together with adequate attention to professional studies in the sense indicated in (4) above, is too much for a three year course, except in very special cases. The "rush" for degrees in training colleges, of which the Board of Education complains, is the perfectly natural outcome of the present Curriculum, which places all the stress upon general studies, and relegates "theory of teaching" to the position of an ordinary subject, tested by a single paper.

(7) The ultimate solution of all these problems lies, I believe, in giving the teachers in training colleges the same sort of liberty as that enjoyed by university teachers, by teachers in elementary schools, and, to some extent, by teachers in secondary schools. Examinations in which the teacher has no voice whatever, and *detailed* syllabuses prescribed by authority, devised and amended without the slightest reference to the views of the teachers concerned, are an anachronism. It must be admitted, however, that a college does not deserve the degree of self-government here claimed, unless the need thereof be acutely felt. A college which is well content to be under the thumb of the anonymous syllabus-maker and the external examiner had probably best remain there. I should hope, however, that no such college exists. Assuming this, I can conceive only two real difficulties in such a scheme as was hastily thrown out by the Board of Education a few years ago, and as hastily withdrawn. These difficulties are:—(1) That approximate uniformity in the value of the teacher's certificate is necessary, and (2) that an outside authority must co-operate with the staff of a college in the responsible work of examination. The first of the requirements would be sufficiently secured if the Board were to issue a simply stated Curriculum (comparable with that now prescribed for elementary schools in Art. 2 of the Code), leaving the individual colleges to make detailed syllabuses to suit their needs. In the most important sense, indeed, uniformity in the value of the certificate is simply unattainable. Does anyone really imagine that, though the syllabuses and examinations are the same for all, you get the same result from first-rate lecturing, third-rate lecturing, tuition by correspondence, and self-teaching? The second of the above requirements

this end the training colleges should, I think, work for affiliation to the local universities. The further difficulty of expense would have to be faced. But if the Board is relieved of the trouble and expense of conducting examinations, it can surely afford to contribute towards the expense of such examinations as are here referred to.

### The Practical Training of Students in the Art of Teaching.

BY REV. R. HUDSON.

Whatever differences in methods of training exist among the various Training Colleges, we all have one object before us, viz., to equip the students in the best way possible for their professional work as teachers: we have all, I conclude, got beyond the miserable parody of an ideal which thinks that the standard of the teachers own intellectual training should be limited by what he expects to have to teach: we believe that the teacher himself should have the widest education which he is capable of assimilating, and that he will be the better teacher in an Elementary School, the more he has been true to himself in the development of his own faculties; but in Training Colleges however complex the work, there can be only one ultimate object of all efforts, the training of practical teachers in the best way possible under the circumstances.

To those who are not intimately acquainted with the actual conditions of life in our Training Colleges, it would not be unnatural to assume that if we all have one common end, it would be easy to formulate common means of arriving at that end: but actually there is no part of the curriculum in which it is more difficult to lay down hard and fast rules than in the arrangements for the actual practice of students in class teaching during residence: the number of schools available; their distance in relation to the position of the college; the previous experience of the students; the relation of the instruction of these students to others, as in the case of a University College; and, perhaps, most important of all, the varied aims and methods of responsible college authorities; all these combine to make the actual practical training of students a matter for special

securing the practical training of the students: training is experimental in character, no country has solved the problem, and I venture to think that it will be a bad day for any country when it reduces training to such a cut and dried system, as to eliminate the individual characteristics, aims, methods, and personality of the teacher responsible for the training.

The first point that occurs to me in which difference of opinion may exist among those who train teachers is the relation between what I will call "experience" and "training": in my opinion experience must always be ahead of training: before the technical work of training can tell, there must be some basis of experience in the student on which to build: lectures about school method, preparation of lessons, &c., to those who have no experience of actual class work, and to those who have no experience of failure, must be wasted. Those responsible for training should be able to assume that a student knows what it is like to stand before a class for so many hours a day from Monday morning to Friday afternoon, and to throw the same interest into the Friday lessons as into the Monday lessons: he should know the difference between dealing with a class on a bright morning when boys and teachers all feel alert; and on a steamy, muggy day, or in a London fog, when the class is dull and sleepy, but the teacher has to be as jolly as ever he was on the brightest morning: a little experience of this kind will go a long way, but it is necessary before training can be of any use.

The experience I refer to is not that of an occasional lesson given in school, or of watching lessons given by class teachers, but the actual experience for three or four weeks at least of the normal work of a teacher during a whole week. The college staff can do very little here, it is waste of valuable weeks of college residence for students to be gaining the experience which could equally well have been gained in any school under the supervision of the Headmaster before admission: it could well take place between Part II. of the Preliminary Certificate Examination and admission in the September following; it would form a fitting summary to the practical training of the pupil teacher, and an introduction to the training in college. Of course an entirely different system could be devised, in which the student comes to college *bona fide* without experience, as for

system and that now existing in colleges, are so entirely different in principle, that I do not see how they can effectively work side by side: also it would seem to be bad economy to attempt it.

The distinctive work of the staff of the college for the students should be that of "Training": the six weeks laid down by the Board of Education as the minimum time for school practice should be weeks of distinct training, as distinguished from mere opportunities for gaining experience: for this there must be close touch between the college staff and the student at work: sufficient knowledge of the work of each individual student in school must be obtained by those responsible for training, from personal observation to enable an opinion to be formed as to each student's capacity, temperament, interest, strength or weakness in particular branches of work, and so on: reports from others connected with the schools in which the students practice, whether given verbally or in writing, are of the greatest possible value; but these are no substitute for constant personal observation by those responsible for the training. A system of training requires that there should be a very close touch between tutor and pupil, in regard to the instruction of the tutor and the actual practice of the pupil in teaching a class and in observing the teaching of others: the principles and methods laid down by the lecturer in the lecture room, may, or may not, be the best; but it is essential to the success of any system of training that the lecturer should be constantly in touch with the practice of individual students, so as to enable him to justify his own views from the actual results seen in the class room. It is most important not to cramp individuality in the students, but on the other hand the average student in college has not had sufficient experience to enable him to gain, entirely unaided, any benefit from the advice of many people of conflicting views: visits of observation to hear lessons by experienced teachers may only lead to confusion unless the methods observed can afterwards be discussed with those responsible for the instruction in college: students of wide experience can form their own judgments; but the average student requires help from those of wider experience to enable him to form a useful judgment on what he has seen; in fact he requires help actually in

How then may we best use the six weeks which have to be devoted to school practice? The Board of Education quite rightly lays down that a particular student should be occupied for not less than a week at a time: but we shall probably have different opinions about the way in which to distribute these six weeks of practice among all the students of a college: *e.g.*, is it better to distribute the practice throughout the year, putting a few students into school each week, or to send all the students of a particular year into school at the same time; this often has to be settled by local circumstances, but, when both methods are possible, which is the better? After trying both, I have come to the conclusion that far better work can be done by concentrating the periods of training, than by spreading them out: suppose that the practice is taken in three periods of a fortnight; one fortnight in the first year, and two fortnights in different terms of the second year: during those times practical teaching is in the air; it is the one thing talked about; there are no grumbles from lecturers who have lost a dozen pupils out of a class, or from pupils who grudgingly leave their lectures just at the time when the point most important for them has been reached, but all can throw themselves with freedom and interest into the school work. An additional advantage is that the greater part of the staff can take their share in the supervision of the students during practice.

A second point that the responsible college authorities must decide is the actual amount of teaching to be done by each student during the week: we have to get the maximum of usefulness in the way of training: the quality of each lesson given is more important than the number of the lessons given: at the outside a student can, in my opinion, only teach with profit for half the week. How then should he use the rest of the school hours? not I should say in preparing lessons, that should be done outside school hours; a part of the time will be taken up in legitimate work arising out of lessons given, *e.g.*, marking books, or preparation of apparatus, but the greater part of the time will be spent in observation of lessons by other students, and by the class teachers, of the school buildings, books, material, ornaments, &c., and in getting hints from the Headmaster and assistants; I am sure that we all have found



will be spent in hearing lessons, and I wonder if we all grasp the importance of this in training; under modern conditions, the assistant teacher in a school is shut up in his class room, and hardly ever, after he leaves college, will be able to hear a lesson by another teacher; very few teachers copy the traditional omnibus driver on a holiday, they don't spend their spare time in hearing the lessons of other teachers. I am not quite sure of the reception they would get if they did.

I would further suggest that students should, where possible, make their visits of observation in pairs; more than two will generally overcrowd the class room, but the value of discussion between two students after hearing a lesson together is very great.

If the school is large enough eleven students might attend: at any one time five students would be teaching, and three pairs hearing lessons; or, in a smaller school, there might be three students teaching and two pairs observing; for the greater part of the time it will be possible for a member of the college staff to be present in one or other of the class rooms where students are observing; and he will be able to judge of the accuracy of the observations made and the conclusions formed. Saturday morning forms a convenient opportunity under the above arrangements for discussions about the week's work between groups of students and members of the staff.

In addition to the actual six weeks in school, there will be the usual discussions on educational subjects during each week, criticism lessons, model lessons, &c. In this connection I will only say about the Criticism Lesson: (1) while there seems to have been a great deal too much of it in the past, it is too valuable an opportunity for instruction and discussion to be allowed to drop; (2) provided that space permits, I cannot see why there should be any limit to the number of students present; (3) all discussion about the lesson should take place immediately after the conclusion of the lesson; criticisms offered at once may not be deep, but they are the actual thoughts of the students; criticisms made after an interval are like notes on a chemical experiment written up outside the laboratory.

Lastlv, I would urge that no Training College equip-

have a free hand in settling all questions of organization, curriculum and school method; at present this seems beyond our reach, but ultimately we must hope that some solution will be found, and in the training of teachers a normal master without control of a school will be looked upon as impossible as a chemical lecturer without control of a laboratory.

## THE DISCUSSION.

Miss ALICE M. JACKSON (Homerton) said: The mental cultivation of students in Training Colleges needs to be more intensive. The students have now to adopt the psychological stand-point, which is new to them, and they need time for reflection. All the subjects which they have previously been studying need now to be looked at from the point of view of the teacher. It would be an advantage if many students could do as Mr. Raymont suggests, and substitute "The Psychology of Number" for a more extended course in mathematics. Some subjects, *e.g.*, geography, are frequently taught on very old-fashioned lines, and it would be well if students could pay special attention to the modern methods of teaching such subjects. Students should have leisure to pursue some kind of hand-work, and they should realise that this is an essential part of a satisfactory curriculum for the primary schools. In the Certificate Examination more stress should be put on the Theory and Practice of Teaching. Specimens of hand-work should be presented by teachers who intend to teach in infant schools, and perhaps also by those who will be engaged in the upper standards. The training colleges should be primarily places for training teachers. With this end in view all students should have some *continuous* practice in handling a class. When they leave college they should be sent for a year into specially approved schools, there to continue their practical training under an efficient head-teacher.

Rev. J. A. HANNAH (Norwich) ventured to refer to their plan of school practice, as nobody else had mentioned such a system. They found advantages and minimising of difficulties in sending half the students of a year into

interest, while the repetition of a fortnight's lectures kept the college work even. He disagreed with a remark in one of the prepared papers as to no limit but space being necessary, regarding numbers at Criticism Lessons. They had found an increase of keenness since adopting a system of smaller groups. Difficulties experienced with head-teachers about school practice had led to the suggestion, that the Board of Education might perhaps more clearly define what was implied in "affording facilities" for students' work.

Professor HENDERSON (Nottingham) said: He wished to strongly support the proposals of Principal Salmon and Vice-Principal Raymont. Seeing that the syllabus in Mathematics for the Preliminary Certificate Examination, is practically the same as that for the Certificate Examination, at any rate for women students, he suggested that well qualified students be allowed to offer the men's syllabus or drop the subject. If the scope of the Theory of Teaching were extended, the teaching of Mathematics could still be included, and such books as "Teaching of Elementary Mathematics" and the "Psychology of Number," mentioned by Mr. Raymont, would answer admirably. Similarly with General Elementary Science, let qualified students either take up one definite science or drop the subject, while again making provision for the pedagogical aspect. As to Needlework he should like to hear an expression of opinion from the Women's Colleges, but it seems a commonsense view that the methods of teaching Needlework should be the essential feature. Mr. Raymont's proposal to limit the number of subjects was very good; the speaker suggested not less than two nor more than three. Concentration was what we want in the Training Colleges, the students have reached an age when they could appreciate and get full advantage from the deeper study of a subject. We were constantly complaining that the curriculum was too crowded. The above plan would both reduce and improve it.

Miss C. FOX (Southampton) suggested the postponement of the period of continuous practice until after the Academic Examination; there would be, of course, a short period of practice in the first year, to give appreciation of plans used in lectures and in demonstration

by the consideration as to whether bursars enter college direct or whether they serve for a year as student teachers. The Wiltshire County Council had determined that all bursars should act for a year as student teachers. The suggestion that a special period for practical teaching, at the end of the two years' course was good, provided that there has been previous instruction in theoretical teaching, a course combined with model lessons, criticism lessons, and discussions.

Rev. H. WESLEY DENNIS (Battersea) sympathised entirely with the general line of Mr. Raymont's paper, and only ventured to add a few comments and suggestions. The reasons why in Battersea he had supported and encouraged University work were:—(a) Because it had opened out the horizon of work throughout the college, otherwise cribbed, cabined, and confined by an over-rigid uniformity. (b) Because the absence of classification had made it impossible for the good student to gain the position which under the old conditions he strove to achieve, and had taken some of the ambition and consequent spirit from his work. As regards the Board's syllabus he recognised the endeavour to give variety within limits, but earnestly deprecated two noticeable developments of recent years:—(i.) The hasty insertion into the curriculum of a demand for teaching the craze of the moment, and then the method of evaluating the work done by the number of hours given, without regard in either case for the possibilities of a college time table. He spoke with some feeling when he said that manual and physical training were both given for some years before the Board issued any mandates, as also some training in hygiene. Thrift, citizenship, and moral instruction were all excellent, but the right method was diet not doses. The speaker lived in daily terror of being told to include Esperanto in his course of studies and Diabolo among his physical exercises, and of having to fill in a form to show the hours given to each respectively. (ii.) The slight importance attached to study of the mother tongue and the theory of teaching, as shown by the very inadequate examination tests applied, one paper of three hours in each subject at the end of a continuous two-years' course. He agreed with Mr. Raymont, and

the setting and correcting of papers done entirely by the outside examiners. He wished to see the Examination held by colleges in small groups, the results published in a classified list, and the expenses paid, or at any rate a definite sum given for the purpose by the Board, who would have to approve of all arrangements. He would welcome this as restoring value to the certificate, and as giving an opportunity to students rightly to measure their progress with their fellows of the same and other colleges on equal terms.

All would agree as to the common object of the Training Colleges stated by Mr. Hudson. The speaker felt equally sure that all must agree that you could not and ought not to attempt to lay down a common method. There was no royal road to perfection. For his own part, in spite of the able way in which Mr. Hudson stated his case, he found insuperable objections to the "block" system. He admitted its conveniences: it was a delightful solution to many internal difficulties: it closed the mouth of the grumbler on the staff, but it suggested at once that fatal idea so very prevalent some years back, and horribly infectious if it should come in again, that school practice was something to be "done," and when done "done with."

Again the difficulties of the school: you could not flood a school with students: the moment you did so the conditions of work were unreal and the practice robbed of its best value. There was a great deal to be said for working in pairs, but he did not see that you could expect any department of a school to give you the use of more than two classes at a time. So far, in his own college, apart from the adjoining school (now secondary), where five senior students attended at a time, they now never had more than two students at a time in a Council School who were placed absolutely at the disposal of the Headmaster, and were expected to do the work, as far as possible, under the conditions under which they would work when themselves certificated teachers. They would not find out the real weaknesses by bolstering up students under artificial conditions, but by making them face the work which they would have to do. He laid down no method for others, but he earnestly desired liberty to

teachers with not only sound theoretical knowledge, but also, and far more so, with the power of gripping and holding the class, and of teaching without the terrible consciousness of the presence of the class which confounded and overwhelmed the young and inexperienced teacher.

The other main difficulty in the "block" system to his mind was this:—"Too many cooks spoil the broth." Not all the members of a staff were equally qualified to advise young teachers; even if they were, "in a multitude of counsellors there was not always wisdom." He would have every member of the staff in touch with the schools, but there should, and must be, some members who specially devoted themselves to this work and gauged the powers of the students, or there will be hopeless confusion.

Mr. W. T. PHIPPS (York) said: There was little time for students to form good teaching *habits*. What was really needed was time for the students to think about the teaching they have done in the practising schools. The curriculum should be lightened, so that weak teachers who were also weak students may afford time to extra practice, and thus learn to teach what they did know. More time and opportunity were needed for visits to various kinds of schools, to infants' department as well as senior departments. Thus students would become accustomed to the atmosphere of an elementary school, and would learn that a department was not an isolated unit, but an organic part of a school.

Rev. S. BLOFELD (Battersea) referred to the aid the proper use of libraries might give to students in the drawing up of schemes and notes of lessons. The curricula might be simplified if students who already had a sound knowledge of certain subjects (*e.g.*, mathematics, science) were allowed to demonstrate their knowledge in the giving of lessons on such subjects. In the theory of teaching greater attention should be paid to the actual history of the subjects, especially as far as it deals with experiments, successes and failures.

Mr. HARVEY WILLIAMS (Bangor) advanced the following opinions in support of Mr. T. Raymont's views, as expressed in § 5-7 of his Short Papers:—

- i. That the reduction of the time and energy expended upon general studies, not specifically pursued as a direct



ii. That specialisation in at least one subject of humanistic study was essential for every student of a Training College. Hitherto the opportunities of specialisation afforded by the optional courses of the Board of Education, have been utilized rather to carry the work in a number of subjects to a more advanced stage and so prevent mere marking of time amongst certain of the stronger pupils, than for the express purpose of specialisation. Neither the benefits of an increased *teaching* knowledge of the subjects nor the benefits of real specialisation are in this way secured. The need of specialisation was as urgent in the case of Training Colleges as of the Universities, for the reason that the students passed out into the world to act the part and assume the responsibilities of men, as well as to perform the functions of a teacher. There could be no better provision for the cultivation of independent thinking and sound judgment, than a full and advanced study of a subject such as English Literature or Modern History from the best available sources, whether these be books, or lectures, or at best both.

iii. That affiliation to the local Universities which would secure admission to the Professorial lectures upon the subjects in which a student is specialising, was eminently desirable. There was nothing more beneficial to a young student than to have sat at the feet of a really great University teacher. A personal introduction, so to speak, was thus given him to the great field of learning and to the society of the workers in it, amongst whom he would have otherwise always felt, even though his own reading might have been extensive, the embarrassment of a stranger, and an uncertainty of his position in hierarchy of students, great or small, of any of the large pursuits such as History or English Literature.

iv. That specialisation of the kind indicated above in one or more of the great branches of humanistic study would correct the tendency,—almost certain to appear,—in the direction of a vicious uniformity, if all the general subjects were to be studied with a view mainly to an acquaintance only with such parts of them as was suitable for the purposes of elementary teaching.

The PRESIDENT congratulated the Association upon the excellent discussion, evidently the circulation of the papers before the meeting was justified. The papers and the discussion testified to the anxiety of the Training College to improve the Curricula, especially upon the practical side. He felt it necessary to point out that while everyone had devoted special attention to the strengthening of the Curricula, few faced the necessity for simplification, they must guard themselves against the danger of adding to the practical side unless there was a relief in other directions. The papers and the discussion could not fail to influence studies and practical teaching in Training Colleges.

## THE PLACE OF THE HISTORY OF EDUCATION IN THE TRAINING OF TEACHERS.

BY PROFESSOR J. WELTON.

Considerable scepticism appears to be prevalent among those responsible for the training of teachers for primary schools as to the value of the history of education as an element in such training. That educational theory is of value is agreed, though the meanings attached to the term are strikingly various, as is evidenced by a comparison of the several syllabuses issued by the Board of Education, which apparently mean: "Study something connected with 'Principles of Teaching,' it doesn't much matter what." But even this half-hearted acknowledgment is denied the history of education. It does not appear in syllabuses 1 and 2—those for teachers in senior schools; and in syllabus 3—that for infant school teachers—only as "the history of the kindergarten and later developments." Nor is the case much better when we turn to the more advanced syllabuses for optional subjects. Here, indeed, we read as a heading "The Theory and History of Education," but when we look at the details we find that "History of Education" is a large term for a very little thing: what is to be studied is a small and detailed topic from the history of education—a topic which, standing in isolation from any historical context, can have but little of the historical atmosphere. For infant school teachers, again we have as history "Fröbel's Pedagogy and Autobiography," a subject not only condemned by its narrowness and isolation but open to the further objections which will be urged later against the exclusive use of biography. Nor when we examine the "seven alternative courses" in History do we find the omission remedied. Thus it seems fair to infer that the Board of Education does not consider the history of education a subject worthy the attention of either teachers or students in Training Colleges. And I have not heard that the Training Colleges themselves have directed their efforts to remedying the omission. The inference seems to be that, in this matter, they agree with the Board.

When however, we turn to the syllabuses in education

integral part of training; and those of the primary training colleges which are connected with the universities enter their students for these examinations instead of for those of the Board of Education.

It would seem, therefore, that, speaking generally, students in university training colleges study the history of education, those in other training colleges do not study it; or, at any rate, are not called upon to do so by the scope of the examination by which the results of their work are tested. We appear, then, to be faced by two alternatives: either (1) the one class of students is spending a considerable part of the time devoted to professional training in a study which is professionally unprofitable, or (2) the other class of students is deprived of a valuable portion of professional equipment. Either conclusion is so much to be deprecated that the decision of the question cannot be regarded as of merely academic interest. It is as a contribution towards reaching such a decision that the following considerations are submitted.

It must at the outset be pointed out that to neglect the historical development of education is to depart from the general tendency of thought in our own day. The nineteenth century has, indeed, been called "the historical century," just as the eighteenth century might be styled that of abstract and *à priori* dogmatism. And the historical movement originating in the last century is continually gathering force. To whatever department of life we turn, we find students more and more acknowledging that a real understanding of the present can be reached only through the study of the past. This was the great service rendered by Darwin to natural science, and the same conception has been increasingly found true in all the human sciences—in politics, in economics, in ethics. As Paulsen well says: "No one will reach a clear and distinct knowledge of the mixed and often confused conceptions and aspirations of our age who does not pursue the great tributaries which form the stream of our moral civilization to their sources."<sup>1</sup> The truth of such a view will scarcely be gainsaid, and to accept it grants the whole case. For education is ancillary to ethics, if by the latter word is meant the science whose "object is to guide us in the proper conduct of life."<sup>2</sup> and is certainly relative to the

The abstract study of any of the relations of man to man yields by itself a set of empty forms and principles which, when taken as direct guides to action, lead to a narrow and frequently erroneous dogmatism. The formal economics of the earlier part of the nineteenth century, with its abstraction from everything in humanity save the desire to get much and to give little, is an example of the legacy of the eighteenth century with which we are all familiar. In ethics we find the same empty formalism in the rigorism of Kant, with his abstract categorical imperative ignoring all the concrete conditions under which all human actions have to be performed. In a similar way the abstract study of the theory of education yields results mainly formal and *à priori*. Its talk of "the child," and "the child's mental activities"; of the aim of education as "the harmonious development of the child," or as "preparation for complete living"; of "formal steps of instruction" and so on is all mainly in the air, and with many students is apt to remain there. The abstract treatment does not appeal to them, and they make little or no effort to reduce the abstractions put before them to terms of the actual pulsating life of the school-room. Nor is this to be wondered at. Were we in the eighteenth century, such an abstract and *à priori* mode of presenting the theory of education would be all in line with the prevalent mode of thought of the time. But now, as has been said, it is entirely out of harmony with the general way of thinking. More, it is in antagonism to the context of the very teaching which is so given. Do we not insist that the abstract should be reached through the concrete, and that *à priori* dogmatism is of all things is to be avoided? Yet in the abstract method of teaching the theory of education, a set of principles is either deduced *à priori* from general psychology, with a little help, it may be, from ethics and logic, or else the teaching is made "strictly practical"—which means that rules of procedure are laid down dogmatically. No doubt such rules are the outcome of experience, but of experience with which the students are not made familiar. As the students themselves do not gather the rules from their own examination of teaching experience, the formulation by the lecturer is *to them* dogmatic

It results from such training that the very dangerous, though very common, tendency to regard the school as the only place in which education is given, is strengthened. A natural consequence of this point of view is the idea that the school is so self-contained an organism that it can and should determine its work with little or no reference to the life of the community outside its walls. For the most probable result of mere abstract theory is the belief that there is an ideal of education which remains unchanged throughout the ages—an absolutely best training and teaching, to the realisation of which, it is assumed, we are much nearer than our fathers. And the high-priests of this esoteric cult are the teachers, to whom it should, therefore, pertain to determine the studies and methods of the schools. Of course, taken formally enough, we may speak of an ideal education. But directly we begin to deal with the real thing we must give a content to the absolutely empty formal concept, and this content can only be taken from our own modes of thought. Hence such a claim is at the bottom of any cleavage which the age may deplore between the work of the school and the requirements of the community. It means that the academic filling of the formal idea is more or less divergent from that of the community as a whole. It is true that teachers are more or less experts in school work: whether they are specialists in education in the wider and truer sense depends upon the breadth and sanity of outlook by which they see their own efforts in true relation to the one whole complex social, intellectual, spiritual, and material life of their age and country.

It is here that, in my opinion, we find the true function of the history of education in the training of teachers—a function which cannot be otherwise fulfilled. But that it may fulfil this function it must be a real history of education, not something vainly so called. Now, if we ask ourselves what we mean by the education given in a certain community, we are led away from the one-sided individualistic view which abstract theory is so apt to thrust upon us, and we are drawn to the complementary conception that it is the sum of the efforts of the adult community to give to the young that culture and those views of life which are at the time prevalent, and to do this in such a way that the next generation may advance



In the first place the idea of an absolutely best education, independent of time, place, and circumstances, disappears, for it has no content. Life is always real and concrete; training for life, therefore, is always training for a particular kind of life, with particular aims, aspirations, beliefs, thoughts, evaluations of experience, and material surroundings. To be successful the training must be in true relation to all such aspects of life. That a particular kind of training would not fit a boy for twentieth century life in England is no reason for condemning it as unsuited to its purpose in the thirteenth century. Indeed, thought on education has always been relative to the time, whether or no the thinkers have been conscious of the influence or have supposed they were uttering eternal and immutable truths on which time had no influence. Plato, in the *Republic* and the *Laws*, gives us an idealized Greek training; Rousseau, in spite of himself, paints a fantastic product of eighteenth century individualism. All projects for reform have had their root in dissatisfaction with an actually existing concrete state of things. And, as projects of reform have never been wanting—especially in modern times—it is evident that the actual process of education has never yet been altogether successful. A historical study must, then, estimate the success of particular systems and endeavour to distinguish general causes of success or of failure from those which are special and accidental, and thus attain insight into the tendencies of our own day. Of course, the true test of the success or failure of a system of education is one which cannot be applied directly and immediately. It must be sought in the history of the general lives and aims of the generations as they succeed each other. When a nation becomes nobler in thought and deed, then, indeed, it is safe to say that it is nourishing a generally good educational system, no matter how different it may be from that to which we are accustomed, or from our *à priori* conceptions. When, on the contrary, history shows a people decadent in life and thought, its educational system stands condemned. And such condemnation implies that the education had gradually lost touch with the real needs of life. As national character degenerates, family life becomes less real, and, consequently, the foremost of educational instruments loses its efficiency. More and more is thrown on the school, and, under the conditions we are considering, it will be found that the work of the school has become more and

more out of harmony with the actual requirements and demands of life. There is a natural and healthy conservatism in schools and universities which makes them slow to change; but when conservatism becomes stagnation—the holding to a dead tradition of culture which the age is rejecting—then school and university cease to do real educational work. Hence, both family and school failing, the young receive no true education, whatever artificial polish or conventional accomplishment may be imposed on them. A standard example of what is meant is found in the decadent Roman Empire of the fourth and fifth centuries. Study of the history of education, then, brings home to the mind as nothing else can the danger of the *à priori* assumption that school tradition is right, and the need of frequent and earnest thought on the degree to which what is done in school may or may not be really relative to the lives the pupils are living in the present and will be called upon to live in the near future.

Thus, in the next place, the need to understand the real trend of national life is emphasized, and such understanding is impossible unless its roots be traced in the past. One cannot grasp a tendency by examining a cross-section. History will show that despite all the common humanity of men and peoples, the different ages and countries show startling differences in their apprehension of the meaning of life. To put on one side all savage races, the sense of the meaning of life and the relative value of its different aspects, with the consequent estimate of what is best worth doing and best worth learning, has varied largely in Europe as the ages have rolled on. The centre of interest changes with the changes in this common philosophy of life, as we may term it. In the Greek world, it has been forcefully said, the centre of interest was man; in the Middle Ages it was God; in modern times it is the atom. At any rate nothing so marks modern thought as the extent to which it is occupied with the material world. "We may say, I believe, that no age has ever had a clearer idea of its goal and of the road leading to it: the goal is heaven on earth, the road to it, natural science."<sup>1</sup> Yet amid this spread of materialism, especially among young men—shall we say, because of it?—there comes the phenomena of pessimism and of the "immoralism" of Nietzsche, which so exercise the

<sup>1</sup> Paulsen, *op. cit.*, p. 142.

minds of German thinkers. But, on the other hand, there is a growing vitality in Christianity and an increasing sense among thinkers of the insufficiency of materialism as either a satisfaction of human cravings or an explanation of the universe. One sign of this is the increasing tendency to pass from the attitude of assured contempt towards the Middle Ages which marked the seventeenth and, still more, the eighteenth centuries to an appreciation of the fact that in those ages elements of life were emphasized which the modern world cannot afford to neglect. A general consideration, therefore, of the trend of present day thought does not prove as conclusively as is often assumed that it is necessarily and predominantly in the direction of a naked materialism essentially antagonistic to spiritualism. That increase of knowledge is held to be mainly increase in knowledge of natural phenomena—so much so that “science” has come to have its present curiously restricted application—is undeniable, but that this means the substitution of a materialistic for a spiritualistic conception of the universe is quite another matter.<sup>1</sup> Now it has been implied in what has already been said that education which is really in touch with life exerts an influence towards the improvement of that life. Life and education mutually determine each other in the onward flow. But to be really in touch with life means to be in touch with the best elements in life. It is, therefore, of the utmost importance that educators should grasp the true trend of national life, and bring the influence of education so to bear that those factors are strengthened which make for increased nobility of life and not merely those which aim at the improvement of the material accessories of life. In the history of education only too many examples are found of the dire results of neglecting the spiritual needs and aims of mankind, and of the disastrous consequences of taking the lower and often more obvious of the prevalent conceptions of life, instead of the highest available at the time, as the goal of educational effort. And the effect of the various factors which make up the trend of modern life is more easily traced in the past—where, to a large extent, each can be studied in partial isolation as the predominant feature of an age—than in the present time when they are presented to us combined in an unexampled complexity.

<sup>1</sup> It may be remarked that the above passage was written before Mr. Balfour gave his Sidgwick Lecture, in which the same point of view is maintained.

The study of the history of education will show, further, the general character of new movements, which, in their essence though not in their form, are usually very old movements. One of the characteristic features of our time is the desire for novelty and assumption that all change is improvement which especially affects the young. Many teachers seem to aim more at doing what seems new than in discovering what is true. No doubt, many of the educational novelties of our day can be tried at once by abstract theory, but few people take the trouble to apply the test, and the conclusions of those who do—especially when adverse—are regarded with suspicion by the empiricist. But when proposed “reforms” are seen to be simply revivals of past educational heresies which have been tried and found wanting, the case is different. It is certainly good for a teacher to have an open mind—but it should frequently be open at both ends. The touching faith shown by many in the superior educational wisdom of our own times, and in the extreme youth of all that is really good and valuable in education, receives a rude shock from the study of the history of education. And this is altogether to the good, for in itself it tends to reduce the anxiety for something new and “up-to-date” which is the characteristic mark of ignorant and excitable empiricism and a pathetic symptom of the continuous disappointment which attends the breathless attempts to keep pace with the changes in “educational” fashion and the kaleidoscopic mutations of “educational” fads. When, for instance, the student finds that the great “modern” doctrine that educational effort should be adapted to the development of the pupil has been a commonplace of educational theory for more than two thousand years, he is more likely to appreciate the relative values of the abstract doctrine and of the modes in which it may be applied, and to enquire of the past to what extent and in what ways such application has been successful or unsuccessful, and in that find the direction in which to seek the answer to some of the problems of the present.

It is evident from what has been said that the history of education I have in mind is one which keeps in close touch with the history of spiritual, intellectual and social life in general. Like every other special department of history, the history of education is abstract in the sense that attention is fixed on one class of phenomena and abstracted from others except in so far as the latter are

nearly connected with the former. But the exception is a most important one. To treat the history of education in isolation from the actual life of the various peoples, to disregard their views and estimates of life, is to lose the essential good I am claiming for its study. The historical treatment must show education as the stream of conscious effort made to train their young by peoples with certain more or less definite ideals and modes of thought and life. In such a treatment the names most familiar to us in what may, perhaps, be called the common English conception of the subject, will often hold but a subordinate place. Probably the current estimation of what is meant by the history of education is due to the fact that the first English book which drew much attention to the subject was Quick's *Educational Reformers*. But this never claimed to be a history of education, and to regard it as one is not unlike taking the *Dictionary of National Biography* as a history of England. Biography holds the same relation to the history of education as to every other department of history. Nor does a chronological arrangement of biographies obliterate the essential differences between the biographical and the historical modes of treatment. Biography is a more or less valuable accessory to history, but in itself it is quite incapable of giving real historical conceptions and of exercising on the mind of the student the cultural effect of true history. This is, indeed, preeminently the case in educational biography. The heroes of political and military history are those who definitely and markedly influenced the trend of events. But often this is not the case with those selected by a modern writer as the "educational reformers" of the past. He is very apt to apply to past writers tests derived from modern conceptions, and hence to select for treatment those in whom he discovers germs of modern ideas, regardless of whether or not the enunciation of those ideas had really influenced the educational practice of the times. The natural result is that frequently those whose names figure most prominently in the modern book were in their own day voices crying in the wilderness. It is, of course, true that the ideas which have attracted our modern writer have found their way into modern educational thought, but often in much later times and through channels entirely independent

educational thought and practice. Writers who were disregarded in their own day and for centuries it may be afterwards, when disinterred from the dust of libraries may be found of antiquarian interest, but the practice of regarding the study of their works as that of the history of education is a mistaken one. Even apart from this it seems evident that the works themselves lose the greater part of their meaning when they cannot be interpreted by a knowledge of the real context of life or thought in which they were produced.

Such a treatment of the history of education as is here contemplated demands that the students have at least a general knowledge of the history of Western Europe, especially with reference to the actual lives led by the people. Happily this is becoming less rare than it used to be. More and more, teachers are recognizing that a study of the history of England apart from that of the rest of Christendom cannot give true historical conceptions. Though the syllabuses for Training Colleges set forth by the Board of Education show as yet no trace of the influence of this fuller and more rational view, yet it appears in the Regulations for the Examinations of Pupil Teachers. Thus, it may be hoped, and to some extent expected, that in the future students will, in increasing numbers, have the appropriate system of knowledge into which the history of education fits, and wanting which it is impossible to teach it without continual excursions into general history. But even when students have not gathered this foundation knowledge, as we may call it, by a previous reading of the general history of Europe, I have always found them willing to do their best to repair the deficiency by study of the subject during the vacation preceding the beginning of our course in the history of education. And it must be borne in mind that a *general* knowledge of the subject goes a long way in forming the background on which our pictures of educational history will be drawn. In the course itself much further and fuller knowledge of the spiritual, intellectual, and social condition of the people will be acquired. In discussing their aims in education one is necessarily considering their aims in life.

I claim, therefore, for the study of the history of education so conceived, that it is of value—

(1) as an instrument of liberal culture, bearing surely,



- (2) as, consequently, leading to broader views and increased charity and tolerance;
  - (3) and so reducing the tendency to regard as infallible our own special way of applying principles which we find are no new discovery, but have been in operation in men's minds for centuries and that with the desire to apply them wisely;
  - (4) and thus throwing light on many practical problems of our own day.
  - (5) And, above all, as an essential instrument in the attempt to unravel the complex tendencies in modern life, that we may evaluate them, and throw the whole influence of educative effort on the strengthening of those which make for good.
- Or, to put my contention in one sentence, I believe that the study of the history of education is the most potent instrument available for forming the broad-minded and clear-sighted educator, in lieu of the narrow, pedantic, and self-satisfied teacher.

## METHOD IN TEACHING PHONETICS.

By A. W. REED

In the Regulations for Training Colleges, under the heading, "Outline Course on Structure of English Language" we find:—"The sounds of spoken English and the method of their production simply treated."

Four or five years ago, Mr. H. G. Wells\* said, "I would repeat here the astonishment that has grown upon me as I have given my mind to these things, that, save for local exceptions, there should be no pressure even upon those who desire to become teachers in our schools or preachers in our pulpits, to attain a qualifying minimum of correct pronunciation." On the other hand Dr. Henry Sweet† says with a weight of authority that cannot be lightly set aside: "Remember that pronunciation is incessantly changing, and that differences of pronunciation between the older and the younger generation are not only *possible*, but inevitable. Remember that language exists only in the individual, and that such a phrase as 'Standard English pronunciation' expresses only an abstraction. Reflect that it is absurd to set up a standard of how English people *ought* to speak, before we know how they actually *do* speak—a knowledge which is still in its infancy, and can only be gained by careful observation of the speech of individuals, the only absolutely reliable observations being those made by a trained individual on himself. Avoid therefore, all dogmatism and hasty generalisations: be cautious in asserting that 'everybody speaks in such a way,' or that 'no educated man pronounces so.' Do not appeal to the authority of an imaginary 'correct' or 'careful' speaker."

Here we have a distinct contradiction to all appearances. The Board of Education and Mr. Wells desire "a qualifying minimum of correct pronunciation," Dr. Sweet urges the student to shun dogmatic statements and merely learn to record facts. A third writer has spoken with much lucidity on this point. Professor Wyld‡ says, "There is a kind of English which is tinged neither with the Northern, nor the Midland, nor the Southern peculiarities of speech, which gives no indication of where the speaker comes from—the form of English which is generally known simply as *good English*."

It is the ambition of all educated persons to acquire this manner of speaking, and this is the form of our language which foreigners wish to learn."

Of course Dr. Sweet differs from the others because he is dealing with Phonetics as a part of the vast science of Philology. He, perhaps, has done more than any living man to advance the study of Phonetics, and his work has almost revolutionised the science of Philology. He is concerned with speech sounds only as phenomena for scientific observation. He is not concerned with problems of teachers and children. A phonetic alphabet to Dr. Sweet is a scientific medium for recording as truly as in a phonograph, the actual speech sounds of this and subsequent generations.

Let us then take for granted that there is, for our purposes, a standard pronunciation. The "King's English," as Skeat calls it, speaking of Chaucer's language, has its descendant to-day in the language of the Court, of the dominant classes, of the learned professions, and, in its purest form, in the language of women of refinement. I am confident that the possession of a "qualifying minimum of correct pronunciation" would render a subtle but real assistance to young teachers, helping them to realize that they are not marked off by personal defects to belong to a lower caste. Our aim then is clear, but what of our method! Phonetics is in the air; every voice specialist, every modern language specialist, our shorthand experts, all have their nostrums. Here then we need the guidance of a man of Dr. Sweet's standing. His work has been devoted to ends that have in them the element of permanency. His methods are safe and his symbols are reliable because they serve a deeper purpose, a more far reaching purpose than ours. He has laid down the elementary principles of Phonetics in his Primer,\* and although the book is not suitable, in my opinion, for use as a class book, it cannot fail to be of use to the teacher.

Having thus cleared the ground I have the temerity to suggest a possible course of instruction in Phonetics. First let us recognise that speech sounds are conventional symbols expressing our thoughts and feelings, and that there is a secondary system of symbols, namely, alphabetic writing. We are, therefore, dealing with the primary materials of language. Our terms must be clear.

secondary symbols, a, e, i, o, u, but one of the twenty or so sounds called vowels. Similarly, a consonant is also an *articulate* sound, it is not a letter. Many sounds produced by the organs of speech, as in grunting, whistling, &c., are excluded from the list of speech sounds. They are *inarticulate*, that is, literally, "not furnished with joints." They are isolated, as distinct from the articulate sounds that form the medium of speech.

The number of articulate sounds used in speaking English is about 45. Twenty-one of these are vowels, the rest consonants. Our first aim is to see that our students can produce these twenty-one vowel sounds with ease and denote them by appropriate symbols. Dialects, whether local or social, are almost entirely a matter of vowels, and we know that most of our students have much to correct in regard to them. Here then is a reasonable and useful beginning; let us require of each student the practice and ability necessary to enable him to produce the twenty-one vowels and to denote them by symbols. In many cases the student will attribute to the symbols his own dialectal values. In this case he must use appropriate symbols also for his mispronunciations. He must learn to hear his own pronunciation, dissociating carefully his faulty vowels from their consonantal setting, he must learn similarly to produce the correct vowel, and this must be his own work in the end.

I have already suggested that Sweet's symbols should be used. In the Primer he employs two sets of symbols, one, which to true phoneticians is of supreme value, is based on Bell's "Visible Speech," the symbols denoting with great ingenuity the position of the vocal organs in the production of the sound; the other, the Broad Romic, which I propose to use, is an adaptation of our alphabet.

The vowels are as follows:—

#### A. *Short Vowels.* The sound in—

- |                                    |                                |
|------------------------------------|--------------------------------|
| 1. cat, Alfred .....æ              | 5. not, quantity ....o         |
| 2. pen, bread .....e               | 6. pull, cook .....u           |
| 3. bit, kiss .....i                | 7. cut, rum.....ɛ (inverted a) |
| 4. china, rather ...ə (inverted e) |                                |

#### B. *Long Vowels.* The sound in—

C. *Diphthongs.* The sound in—

13. *house, rout* ...au  
 14. *go, sow* .....ou  
 15. *toy, voice* ...oi  
 16. *gate, rain* .....ei  
 17. *time, height* ...ai

18. *clear, tier* .....ijə  
 19. *care, their* .....eə  
 20. *pure, skewer* .....iʊə  
 21. *core, four* .....ɔə

Sweet's use of inverted letters is disconcerting at first, but it offers obvious advantages for printing. It will be noticed that the letter *a* is not used among the simple vowels at all. It is used historically to denote the old English vowel *a*, which had the value of the Yorkshire *a* in *man*. It will be found useful for our purposes in dealing with broad *a* offenders. It will also be seen that long vowels are represented by doubling the corresponding short symbol. No. 10 however has no short correspondent, hence the inverted *c*. The use of *æ* for the vowel in *cat*, *Alfred* is interesting. It is an old English vowel now obsolete, and not the Latin diphthong. It is the letter that our modern historians have restored in *Aelfred Aethelwulf*, but as its value was always that of the vowel in *cat*, the restoration is misleading. It appears also in *Cædmon* (pronounced *Cadmon*.)

In the diphthongs it should be remarked that no new symbols appear, and that the first element of the diphthong in every case bears the accent. In actual practice the trouble of the students lies mainly among the diphthongs. They seldom strike the first, the accented element true. Thus a Cockney pronounces the vowels in *house, go, gate, time* as *eu* instead of *au*, *au* instead of *ou*, *ai* instead of *ei*, and *oi* instead of *ai*. In each case the accented element is wrong, yet he would not mispronounce it as a simple vowel. These symbols however put into his hands a means of liberating himself from his habit.

When the symbols are known, lists of words might be drawn up under each, but careful revision and 'viva' tests are very necessary.

In the consonants the changes are few. The Broad Romic equivalents are:

b as in bee  
 d " day  
 (dh) " then  
 f " fall  
 ʒ " go

l as in look  
 m " man  
 n " no  
 (ng) " sing  
 p " pay

t as in ten  
 (th) " thick  
 v " view  
 w " we  
 wh " why

It will be noticed that *c*, *q*, *x* and *y* disappear, because they are unnecessary. The symbols in brackets are alternative forms given by Sweet, which I have chosen to facilitate printing. The *j* is the only symbol that offers any difficulty. The phonetic spelling of *duke* (djuk), *beauty* (bjuti) however will illustrate its use.

Phonetic transcripts of single words are misleading, because many vowels are modified in continuous speech. Thus *was*, alone, is rendered wəz, but in the phrase "He *was* there, it becomes wəz; and many final consonants and vowels are elided in continuous speech.

An examination of the following passage by Sweet will make it clear that the phonetic transcript of individual words is insufficient:—

"People used to think the earth was a kind of flat cake, with the sea all round it."

:p i j p l · j u w s - t ə : t h i ŋ k - d h i · æ θ - w ə z  
 - ə : k a i n d - ə v · f l æ t · k e i k , - w i d h  
 - d h ə · s i j - ɔ l · r a u n d - i t .

I have put in the marks of stress and intonation, but a brief explanation will show that these need offer no serious difficulty. The marks of stress are placed before the word or, in polysyllables before the accented syllables.

(·) marks a strong stress, (:) marks a medium stress, and (-) marks a weak stress.

These marks may be practised with ordinary spelling until they are familiar.

Thus the sentence, "An Englishman was once travelling in China who couldn't speak Chinese," would be marked:

- An · Englishman - was · once · travelling - in · Chiná,  
 - who · couldn't : speak : Chinese.

The marks, (´) for an upward intonation and (˘) for a downward are seen in the words *China* and *Chinese*. Two downward marks appear in the first passage.

We have dealt so far wholly with the *acoustic* study of speech sounds, as distinct from the *organic*, "The word 'sound' has two meanings. When we talk of the sound *s* we mean (1) the shape of the throat and the position of the tongue, by which it is produced, and (2) the hiss which is the result of sending the breath through the passage thus formed."\* To the serious phonetician the *acoustic* side is as important as the *acoustic*. but for our



purposes this is not so. Indeed one might be tempted to argue that a knowledge of the organs of speech is not more important than an intimate acquaintance with the structure of the ear.

A "simple description of the shape and position of the organs of speech" accompanied by individual exercises in illustration of these facts is all that is necessary. For instance, the existence of the vocal chords can be felt by passing from a vigorous *f* sound to an equally vigorous *v*. Place your finger lightly on the speaker's larynx, or Adam's apple, while these sounds are being made, and the vibration will be felt in the case of the voiced *v* but not in that of the unvoiced *f*. In this practical manner the difference between *breath* and *voice* is made clear. Similarly the alternate presence and absence of vibration can be felt in passing to and fro between the consonant *f* and the vowel *a*. Each pair or set of voiced and unvoiced consonants can be similarly used: *p*, (*b*, *m*,); *th*, (*dh*); *s*, (*z*, *r*,); *k*, (*g*); *wh*, (*w*,); *t*, (*d*, *n*,); *ll*, (Welsh) (*l*). The voiced consonants are bracketed.

The formation of these same consonants in a "whisper" will show that it is the voiced sounds that are affected. It is doubtful, however, whether the student will detect the contraction of the glottis or throat that occurs in whispering voiced sounds.

In singing a deep, resonant note on the vowel *o* (as in *vor*) he will feel the vibration of the chest. If he pass from the *v* sound to *vor* he will notice the resonating capacity of a well-opened mouth. Similarly, in passing from the consonant *m* with closed lips, when the resonance comes from the nose and closed "chambers" of the chest and head, to the deep, open sound of *mor*, the same fact of mouth resonance will become apparent. This phenomenon of the reinforcement of sound may be emphasised by laboratory work; in any case its bearing on the free, easy, and open delivery of the voice, as opposed to a mumbled and strained utterance is of the first importance. In dealing with the organic side of phonetics it is essential that the student should recognise the organic positions and actions in his own case. The whole purpose of the study lies in this practical application.

We have dealt with *voice*, we have seen that the vowels are voiced sounds, and that the consonants are divided into two groups of the voiced and unvoiced. A further consideration of the consonants will show us at what

point in the throat or mouth the audible friction or stoppage of breath occurs which constitutes them, and what are the organs that set up the resistance. This yields us a classification of the consonants based on *Position*, and gives us the terms gutturals, palatals, labials, &c. The difficulty in sounding nasal consonants (*m*, *n*, *ng*,) experienced by a person who has a cold in the head, the *uvula* or nasal valve being inflamed, may be illustrated in the course of this classification. "Badders baketh bad" is a happy illustration of this point that the Board of Education alighted on, in framing a recent set of questions.

Consonants are also classified according to their *form*. The *open* consonants show a constant emission of restricted breath, hissed, buzzed or pressed out, as in *s*, *sh*, *zh*, *wh*, *th*, &c. The *stopped* consonants show a complete check followed by a puff or explosion of breath, as in *k*, *t*, *p*, &c. In the *nasal* consonants, the mouth is closed; but the nasal valve (the soft palate or uvula) is lowered and the voiced breath issued through the nose. The *trilled r* stands in a class by itself.

In dealing with the vowels from the organic side, we would emphasise a remark of Sweet's: "As each new position of the tongue produces a new vowel, and as the positions are infinite, it follows that the number of vowel sounds is infinite." Our 21 vowels are therefore only 21 approximations to fixed points. This illustrates well the fact of the essential flux of pronunciation. A gradual and imperceptible change has turned the old English vowel in *staa n* into our *stou n* (stone), *br aa d* has become *bro d* (broad), and *gou s* has become *guw s* (goose). It has been said that an Elizabethan gentleman would fail to understand a modern reading of a play of Shakespeare, though, of course, he might be able to read it in his study. There is a constant modification of vowels imperceptibly going on. Now the tongue is the unruly member responsible for this, and he is abetted by the lips. The tongue has two movements, a horizontal and a vertical. The former produces the *back* and the *front* vowels, the latter the *high* and the *low*. The protruded lips produce the further complication of *rounding*. If the vowels in *fraud*, *but*, *sir*, *father*, *man*, *men*, *bit*, *beet*, be dissociated from their consonants and sounded in a whisper in close sequence, the tongue will be found to be the controlling factor in the sound changes. In *father* and *man* a widening of the mouth will also be

noticed. If the same course be followed with *not*, *no*, *put*, and *you* the influence of the lips will become apparent.

The ceaseless process of modification of vowels has been one of the causes of the present non-phonetic state of our alphabet. The discovery of printing contributed to the fixing of spelling; the conservatism of compositors and the decay of scribes led to the loss of whatever power of phonetic representation the French influences of the Middle Ages allowed us to retain. To a great extent our Old English spelling was phonetic; Middle English was less so, but still we may say that Chaucer's spelling was mainly phonetic. No great change however has taken place in our spelling since Caxton's time, so that we find our 20th century pronunciation saddled with a 16th century spelling. Small wonder then that we feel the need of some adequate system of phonetic reform and of phonetic training. In conclusion, I would draw the attention of the readers of this paper to the excellent text book, from which I have already quoted, by Professor Wyld of Liverpool University. Mr. Wyld deals most admirably with the questions I have had the honour to consider in this paper.

## EXPERIMENT IN EDUCATION.

By PROFESSOR J. A. GREEN.

All who are concerned with the Training of Teachers must welcome any movement which aims at a scientific examination of the principles which have hitherto passed as the basis of educational practice. These principles are in the main either an expression of professional tradition, or they are derived more or less legitimately from the sciences of psychology and physiology.

The traditions of a profession are not of course to be lightly set aside. In our case, they embody the successful experience of the best schoolmasters. The history of education is, in part at least, a history of great practitioners whose influence has left a permanent mark on the work of the schools. Sturm and Fröbel may serve as examples. In these as in nearly all other cases, practical success has one fatal drawback from the point of view of progress. It leads to unintelligent imitation. It is inevitably so, simply because we are not in a position to put our finger on some principle of universal validity, which genius has either brought to light, or has applied in a new way. We only know that certain methods were adopted, and that they proved most successful. Eager to achieve similar success, we go and do likewise. We are spared the troublesome task of thinking for ourselves. We are satisfied with methods and devices that others have worked out. So it is that progressive development has actually been checked by successful practice. Sturm's organisation of the classical curriculum paralysed the grammar schools for centuries, and Fröbel's "Gifts and Occupations," the outcome of an effort towards a geometrical revelation of the world, threaten to kill initiative and to hinder firsthand observation of children's ways and children's needs.

Without failing to give practical success all the weight it deserves, it is clearly desirable to encourage fresh enquiry into the facts amongst which we work, and to examine processes, both old and new, in the light of evergrowing knowledge. There are of course many who claim that the process of teaching has already got its scientific bases, and who are even bold enough at times to claim that education is itself a science. To demand the grounds of such a claim is not unfair. Science, the critic says, is either deductive or inductive in its mode of procedure. "You may begin by laying down

certain principles—the postulates, so to speak, of your science, and upon them you may build up a logical system of propositions which command acceptance, if your postulates are admitted.” If it is claimed that teaching practice is founded upon anything of this kind, the critic is prepared at any rate to give the science his attention and he turns straightway to its presuppositions.

In a rough way, this may represent the critic's attitude towards the Herbartian and the Fröbelian. Granted the kinetic interpretation of mind activities which characterises Herbartian psychology, he may allow the force of the doctrine of many sided interest and admit its bearing upon the problem of what we are to teach; but if he destroys the foundation, what becomes of the superstructure? We must either put in a new foundation, or allow that which stands upon it, to tumble to pieces.

Similarly as to Fröbel. If the critic accepts his interpretation of the universe, and of man's position in it, he may be led on to all that Fröbel sees in the simplest instinctive acts of infancy and he may consent to systematise nursery play on philosophic lines. But if he does not!—The tyranny of preconceptions is nowhere better seen than in Fröbel's observations of children. Ideas of unity and connectedness completely possess him.

“All philosophers, who find  
Some favourite system to their mind,  
In every point to make it fit,  
Will force all nature to submit.”

The modern teacher's library is full of examples of the truth of Peacock's lines. Witness the contortions of thought and fact to which the principle of “concentration” and the doctrine of the “five formal steps” have led!

Any attempt to build up a science of education on *à priori* principles is subject to this sort of attack, unless those principles are of recognised universal validity—comparable shall we say to the axioms and postulates of Euclidian geometry. We have not yet reached such a position and if education is to justify the claim to be ranked as a science it must adopt another method of procedure.

justify the position. Education is an “applied” science, whatever that may mean. The term seems to be used of any science the ultimate aim of which is synthetic and not analytic. Wherever the investigator is primarily concerned with things as they are, and not as they may be when put under the artificial conditions of a laboratory, he is not dealing with pure science. The distinction seems unnecessary. The attempt to reach scientific purity has produced abstractions like that of the “economic man” with whom perhaps the educator's “average child” may be compared.

There seems, in any case, to be no reason why the “applied” science should not so far assert its independence of the more abstract related sciences as to pursue independent enquiry into things as it knows them. The scientific agriculturalist has long since taken up this attitude in regard to chemistry, and experimented on his own account even under the complex conditions of the farm, making all possible use of the results obtained by the chemist and physicist. Whether we call agriculture a pure or an applied science matters little, so long as the subject has a unity and independence of its own, both of which are given by the point of view from which the facts are regarded. The standpoint of the agriculturalist differs from that of the chemist and he is consequently frequently led to methods of enquiry special to his case.

Considerations of a like nature have led to a similar way of regarding the position of education. If it is to make good its claim to be regarded as a science, it must cease to rely so much upon tradition, and turn its attention from the construction and criticism of *à priori* systems to the facts with which it has to deal. It must investigate them under “field” conditions, and by means of comparative statistics and by experiment it must endeavour to reach principles of universal validity. It must collect its own facts, make its own observations and draw its own conclusions. At the same time it may make use of the analytical investigations of the psychologist whose methods also are at disposal so far as they lend themselves to our purposes. The difference in conditions of work and in aim will necessitate new methods and modification of old ones. The fact that the psychologist is primarily an analyst, that the



once the unsatisfactory position of a science of education resting wholly upon psychology, and the need for independent investigation adapted to the special problems which confront the teacher.

The idea of a science of education pursuing experimental methods is not of course new. It is at least as old as Kant and Pestalozzi; and the best educational practice of the nineteenth century was content to trace its procedure to the results of the experiments carried on by the latter at Burgdorf. Nobody was more fully aware than Pestalozzi himself of the incompleteness of his work, and he urged the need of experimental schools in which educational research might be carried on. Until recent years nothing came of the idea, except amongst the followers of Herbart and Ziller, who have concerned themselves chiefly with working out curricula in accordance with disputable presuppositions. The school attached to the pedagogical seminary in the University of Jena is standing evidence of Herbartian zeal which commands respect. All honour to its founder Stoy, and to its present director, Professor Rein.

But scientific knowledge has advanced enormously since the days of Pestalozzi, Herbart and Fröbel. In particular, those sciences to which the theory and practice of education is most nearly related have made enormous strides. A new point of view, that of evolution, dominates men's minds. Important and closely related sciences have sprung into being—anthropology, and comparative psychology, whilst psychology itself has developed experimental methods of research.

Education cannot, in the midst of this progress, continue to attach itself to outworn philosophies. It must advance with the march of human thought and take on the scientific habit of mind, which surely means nothing more than the habit of facing facts, however complex and difficult they may be.

The effort to build a science of education upon the basis of experimentally ascertained fact has already received considerable recognition on the continent. It is new in the form which it is now taking, but its sources are various. From time to time special problems have arisen in connection with the school and with social reform which have led to special enquiry and experiment. So far back as the seventies the cry of overpressure in schools led to the study of fatigue and to the many attempts to measure it, of which perhaps Mosso's

ergograph, Griesbach's aesthesiometer, and Kraepelin's number columns are the best known. Although this particular phenomenon is still under investigation, the original inquiry has led to the more general study of mental hygiene in relation to school work.

The presence of abnormally backward children in the ordinary classes of the primary school raised difficulties in the old percentage days more serious perhaps than they would now, in spite of "exception schedules" which must still linger in the minds of many teachers. The necessity of special treatment for these children has made it necessary to study more carefully the nature of intellectual capacity, and to devise means of testing it satisfactorily. As a consequence, children are being graded in many large continental towns on what is called the Mannheim system, an arrangement which recognizes four types of children—normal children of average ability, constituting according to recent returns about 63 or 64 per cent. of the whole; children sufficiently above the average to be fairly classed as clever, making perhaps 23 per cent. of the whole; children markedly below the average but not mentally deficient, making about 13 per cent.; and children mentally deficient, who constitute a small fraction of 1 per cent. The importance of such a classification is too obvious to need further comment.\*

A third source of inspiration has come from the mental pathologists who, thanks especially to Charcot and his school† discovered the fundamental differences in modes of ideation amongst their patients. Upon this followed the investigations of the experimental psychologists who have given us tests for visual, auditory, motor, auditory-motor, and other types of children.

Independent research into the nature of memory, the analytical study of the processes of reading and writing, and the disinterested pursuit of child psychology have likewise stimulated pedagogic thought and enquiry. As a last instance of the indirect way in which scepticism in regard to the presuppositions of the practical teacher has been set up one may cite the case of Pestalozzi's "*Anschaunungs-Methode*." The evidence of eye witnesses in law courts suggested a case for enquiry which was extended to children in school. We know now that an appeal to the eye produces very different effects upon

\*a. *Der Unterrichts Betrieb in grossen Volksschulkörpern*, Sickinger, 1904.

† V. James, *Psychology* II., 58.

children at various ages, and some investigations have suggested that ocular demonstrations are disturbing in their effects, in some cases at least.\*

In this more or less indirect way the smooth pedagogic course has been disturbed, and teachers themselves are becoming anxious to found their practice upon solid foundations of ascertained fact. *Experimentelle Pädagogik* has, in Germany at any rate, found its most ardent supporters amongst the teachers. In Saxony, for example, the Teachers' Union has equipped and is maintaining an institute for experimental research at Leipsic, the home of experimental psychology. Teachers again are the most frequent contributors to Meumann's *Zeitschrift für Experimentelle Pädagogik*, which has now reached its fifth half-yearly volume, and to which I am indebted for many of the facts in this article. The journal made its first appearance under the joint editorship of Dr. Lay, a teacher in the Training College at Karlsruhe, and Professor Meumann, then of Zürich, now of Münster. Dr. Lay had previously published a useful book, *Experimentelle Didaktik. Ihre Grundlegung mit besonderer Rücksicht auf Muskelsinn, Wille und Tat*. A review in the "*Zeitschrift für Psychologie*" (Bd. 43, Heft 4) charged Lay with improper use of other men's work, as a result of which the joint editorship was dissolved, and Meumann alone is now responsible for the *Zeitschrift für Exp. Pädagogik*. Lay's painstaking researches into the methods of teaching arithmetic and writing remain however, a monument alike to his ability and zeal in the cause, and the *Experimentelle Didaktik*, is the only attempt that has so far been made to write a text book of the subject.

Under Professor Meumann's distinguished editorship we may look for a long and useful career to his journal. An experimental psychologist of the first rank, he has made the problem of practical education his special sphere. Whilst occupying the chair of philosophy at Zürich, he published the results of various investigations of the greatest importance to teachers. "*Oeconomie und Technik des Lernens*," "*Haus und Schularbeit*," "*Die Entstehung der ersten Wortbedeutungen beim Kinde*" are models of method for the pedagogic enquirer. To the journal itself he has contributed articles of great value. In addition to a general introduction to the

\* V. Schuyten "Sur la validité de l'enseignement intuitif primaire *Archives de Psychologie*, vol. v.

whole subject, we have "*Intelligenz-Prüfungen an Kinder der Volksschule*," in vol. i., "*Aesthetische Versuche mit Schul Kindern*," in vol. iii., and "*Die Methoden zur Feststellung des Vorstellungs Typus*," in vol. iv.

Meumann's articles represent fairly well the scope of the journal, except that it includes studies of abnormal children and their education. Of questions more immediately connected with procedure I may cite as examples *Visuelle Erinnerungsbilder beim Rechnen*, an interesting study of the influences which visualisation may exert in the arithmetical operations of young children,\* *Die Erziehung der Aussage und Anschauung des Kindes*, *Übung und Gedächtnis*, &c.

To look now outside Germany, we find in Italy a municipality which has had the courage to set up a school of pedagogic research. Milan has its Istituto di Pedagogia, due in the first place to the personal interest and effort of its present director, Dr. Ugo Pizzoli, who established at his own expense a special laboratory for the study of the intellectual and physiological development of children, whilst he was yet a doctor in private practice in Crevalcore. The Italian government interested itself in what he was doing and sent down a special commissioner to report upon it. Before they had time to act upon his favourable opinion, the Municipality of Milan offered to house and promote Dr. Pizzoli's undertaking. The institute publishes a monthly journal, *Bollettino mensile del laboratorio e scuola di pedagogia sperimentale*, and courses of lectures on physiology, anthropology and experimental pedagogy have been organised. Holiday courses are given, at the last of which more than two hundred teachers attended. So far as I have seen the records of work at Milan the enquiry there seems to be specially directed to the detailed examination of the sensory capacities of individual children. The Italian Government has decided to establish six similar laboratories in various parts of the country.

In Belgium, thanks largely to the initiative of Dr. Schuyten, the director of the Paidological Laboratory in Antwerp, great strides have been made towards securing public recognition of the importance of research in this field. The city of Antwerp has set up a laboratory and

\* Cp. the chapter on Number Forms in Galton's *Enquiries into Human Faculty*.

given its director freedom to undertake any research he pleases. He has free access to all the schools, a sufficiently liberal annual grant to enable him to purchase such apparatus as he needs from time to time, as well as books and journals relating to his work—a matter of the very first importance, involving however in respect of journals an annual expenditure which English Universities are not usually able to meet.

As a result, Dr. Schuyten may point with pride to a long series of important investigations of great educational interest. I can only indicate their nature by quoting the titles of some of them. (1) "Changes in children's muscular power during the course of the school year." (2) "Aesthesiometric examination of school children during a whole school year." (3) "The development of school children's memory." (4) "School work before and after midday." (5) "How far should we rely on appeals to the eye in teaching small children." These papers are, for the most part, published in the year book of his institute, *Stad Antwerpen; Paedologisch Jaarboek*. It is of course printed in Dutch, but the articles are made more generally accessible by the brief summaries in French which follow them.

Dr. Schuyten lectures on his subject (Paidology) in the recently founded "free" University of Brussels (*Ecole des hautes études*). The authorities of that city have made it a compulsory subject for all students in their Training Colleges, an example which is being followed by two other provinces. In the case of Brussels, the subject is part of the programme for the fourth Training College year, and one hour a week is given to it. A paidological laboratory is attached to the practising school, so that the subject is treated both theoretically and practically.

Considerations of space do not permit of any attempt to describe what is being done in this direction in Buda Pesth, in St. Petersburg and elsewhere. The work of Binet and others in France is too well known to need description here, and the experiments of Professor Dewey, Professor Baldwin, Principal Stanley Hall, and many others remind one that pedagogic enquiry is not limited to European countries. My purpose was, however, confined to setting forth the point of view of

I ought perhaps, in conclusion, to say that the question of the final purpose of education cannot of course be touched by an experimental method. That is determined by ethical, social, and political considerations which vary with the time and the country. An experimental science seeks universal truths. When found, they may serve various practical ends. Scientific research into the problem of teaching aims at reaching such universal truths. Do they exist?



## SCHOOLS FOR DEMONSTRATION AND PRACTICE.

BY PROFESSOR J. J. FINDLAY.

In view of the great interest that is being taken in Practising Schools, the Editor has thought well to print the following extracts from a small volume which is being issued by the Manchester University Press.\* There are some seven chapters, all designed to shew how the Fielden Schools, which have been established to serve the needs of the University Training College, are utilized for demonstration and for research. The introduction gives an account of efforts that have been made to induce the Government to put such schools on a special basis for grants, and in a final chapter Professor Findlay discusses the mode in which such schools can best be organised and controlled so as best to serve the needs of students and lecturers in Training Colleges. We print this chapter in full, omitting only some sentences of merely local interest.

It will be observed that Professor Findlay pleads for a distinctive type of school. Another necessary reform is to secure a closer connection between the Training Colleges and the ordinary practising schools; these schools should have better equipment and a better staff, this can only be attained by a special grant. One method does not exclude the other, and in fact most colleges would avail themselves of both systems. It is difficult to understand why such necessary improvements do not obtain the approval of the Board. They would not be costly, and they receive general support from the Training Colleges. Does the religious question again block the way?

"It is not wise to place a Demonstration School immediately under the control of the Governing Body of an institution for Training, although the Governing Body ought to have a final voice in determining the constitution of the school. It is not wise because the school is a society by itself, of a type distinct from that of the College; true, it is called into being for the sake of the College, but the scholars and their parents claim a 'management' adapted to their own requirements.

\*The Demonstration School Record No. 1, containing contributions to the Study of Education from the Department of Education in the University, to be published on March 1st by Messrs. Sherratt & Hughes, London, and the University Press, Manchester, price 1s. 6d.

In the case of a University such an arrangement would be still more unwise, since the whole system of University government is based on the needs of students who have passed beyond school age: the machinery of Senate, Council and Court is out of place in the control of a school. The experiment has been tried once or twice in England and has been abandoned (*e.g.*, University College School has just recently been cut loose from University College).

"Both the Fielden Upper School and the Primary School were started tentatively, through the efforts of a few subscribers who formed a Committee acting in independence of the University. All that the University was asked to do was to sanction the attendance of students, for the purposes of observation and practice, and to permit the University staff to supervise the teaching given in the schools. This, however, was obviously a temporary arrangement, and was most happily brought to a conclusion by the generous gifts of Mrs. Fielden, of Centre Vale. It is intended to continue both schools, under the general name of 'The Fielden Schools,' the Upper School being in charge of a Headmaster and the Primary School and Kindergarten of a Headmistress. The Bye-Laws show the arrangement at present adopted; subject to any modification which may be approved hereafter by the Trustees, these will serve as a basis for working the schools. The endowments and subscriptions will be administered for the benefit of both. It is not anticipated that these funds will provide all the resources which are required, but the generosity of subscribers has so far enabled the Committees to meet their obligations, and it is anticipated that before long Government will have found a way to assist the work as part of the necessary equipment of a Training College.

"A Trust has been created and in the constitution of the Committee under the Trust, care has been taken to ensure an adequate representation of the various interests involved. While these Demonstration Schools can scarcely be regarded as included within the provision made by the State for public education, it is obvious that they come within a general survey of the resources provided within the area: if these schools were not there the hundred or more scholars whom they receive would require to be educated at the public cost in other schools.

"We are often asked as to the type of scholars who are received, and it may be answered that while there is no question of excluding any applicants of suitable age and attainments, the fee (1s. to 1s. 6d. per week) practically settles the matter. We need the help which these fees afford, and parents pay without objection, although it is understood that, if any exceptional cases offered where a parent found the fee to be a serious difficulty, the Committee would not let that stand in the way of retaining an industrious scholar. There are a large number of parents in the neighbourhood who are glad of the opportunity of placing their children in a school where the classes are small, where interest is taken in each scholar, and where the plan of tuition, without reaching to the level of a Secondary School with high academic work, goes beyond the programme of the ordinary Elementary School. This group of the population, families of strictly moderate means, in the suburbs of a city tends to be stable; the children are likely to stay with us until their schooling is finished at fifteen; and for our purposes this is an important consideration, since we wish to retain our scholars under observation for several years. Our 'records' will be far more valuable if we can make up an account of the progress of a number of cases from four years to fifteen years of age.

"The staffing of the schools has been considered with great care. The lecturers and demonstrators on the University staff take a great interest in the work, and hence need to take some share in the teaching in order to supervise students or conduct research while supervising students, but they cannot take the place of class teachers. We endeavour to arrange a class-teacher for each class, who does not take that class for every lesson of the school-day, but makes that class his special concern; this ensures that the detailed control of the daily work is not neglected. In schools where so many people, students, demonstrators, visitors, are coming and going, there would be a danger of the children being left out of sight unless provision was made in this way for class-teachers. Outsiders indeed often suppose that children *must* suffer in such a school, and so they would unless the staff were carefully chosen with this end in view. The junior posts are filled either by graduate

studies to greater lengths, or by teachers of some experience who seek the appointments for a similar reason. We are thus able to keep going a succession of advanced students of Education doing work analogous to that pursued by graduate students in other departments of the University or in the Medical School. The University has now recognised the system by supplementing the emolument of two of these teachers, one in each school, in consideration of the fact that they are assisting in the oversight of groups of students who attend the schools for observation and practice.

"It will thus be seen that the scholars of these schools have a great deal of attention devoted to their welfare, and while the work may in one sense be called experimental, it appears, as a matter of daily practice, to be very like that of other schools, except that far more people are engaged in it, and everything which is done is subject to more criticism and revision than is possible under ordinary conditions.

"The Headmaster, the Headmistress and the University Staff are people of wide practical experience in schools; the junior class teachers are younger, but are specially chosen for the promise they have shown in school work. Hence it is not surprising that parents are well satisfied, and regard the Demonstration School as a second home for their children rather than a place of experiment.

"One important problem in administration remains—the relationship in which these and similar schools will stand to the State. There exist in connection with most of the older Training Colleges, schools which have served somewhat the same purpose, but they were established before the days of School Boards and took the character also of Public Elementary Schools, supplying a portion of the provision for compulsory elementary education, and receiving grants of the same character as those dedicated to other Elementary Schools—and, although their origin was due to the special needs of students—they have never been 'recognised' specifically for that purpose; indeed, there is no machinery at present devised by Government in order to make such recognition possible. We have in fact another of those anomalous situations so common in English administration—an institution established and used to suit one set of conditions but inspected and aided under the guise

best secured by putting the school for Demonstration and Practice in a category of its own, inspected and aided as part and parcel of the work of the Training College for whose benefit it exists. The character of the school, the staffing, the number of classes, all depend upon the needs of the students; it is from this point of view, a kind of laboratory or workshop equipment. Hence it has been proposed that instead of giving grants-in-aid, as is usual in other schools, *per capita* of scholars in the school, the grant should be given *per capita* of students-in-training, for the expense of the school will obviously be regulated by the number of students who require to work in it at one time. Such grants would be similar to the grants made until recently for Training College instruction in Science and Art.

"By thus separating the Demonstration School from other State-aided schools, an additional advantage is secured. It will come under the right sort of inspection; its work will be reviewed by those who are in sympathy with its special aims and needs, viz., by the Inspectors of Training Colleges. Such a school must have abundance of freedom in its arrangements, for it exists partly to illustrate new methods and principles for which the ordinary schools are not yet ready. If its detailed arrangements were to be subjected to the rules of local and central authorities which, necessarily, govern any large school system, half the value of the Demonstration School would be lost. Nor need the authorities which render financial support have any fear that this freedom will be abused to the detriment of the children. Even if the experience of a Training College staff could not be trusted, it may be assumed that inspection by Government Inspectors of Training Colleges would suffice to throw light on any dark places. And, as we have remarked, these schools are at all times very much under the public eyes. Training Colleges are the centre of a great deal of inquiry, and visitors constantly come and go; by their very constitution they are compelled to keep up a high standard, for when they fail to do so they throw discredit upon the authorities of the College.

"In proposing, however, to place the Demonstration School under such control, one grave danger may be incurred—the efficiency of the school as a place of real education may be sacrificed to demands for showiness in equipment and in external results. Demonstration Schools in various parts of the world have already

suffered harm from this source: it is supposed that the equipment must be of the most costly and up-to-date kind in order to exhibit to students the 'best model' of what can be accomplished. So far, indeed, has this tendency gone that in two of the most famous institutions for training an expensive and 'classy' model school is provided as an exhibition for public use, and students are almost wholly excluded from working in it; while a humbler school, attended by children in poorer circumstances is provided in order to do the real work of training, *i.e.*, of demonstration by lecturers and practice by students.

"In the opinion of the present writer, this separation is disastrous, and can only be avoided by frankly admitting that the purpose of the Demonstration School is for business and not for show. Certainly such a school needs all the money it can get for proper equipment and apparatus, but it needs money far more to provide a good fund for salaries, so that skilled assistance can be secured without anxiety.

"And this mistaken view, that the Demonstration School should be set up as a model in matters of external equipment, leads to further misunderstanding as regards the use that can be made of other good schools as aids in training. Within reach of every Training College there can usually be found new buildings, equipped with the latest improvements, the pride of the locality which has erected them. In these schools students will gain a part of their experience, and it is a fatal error to attempt to set up the work of a Training College as in any sense a rival to the good work being done by authorities in the neighbourhood. It cannot be too constantly borne in mind by those concerned in the Demonstration Schools that their special function is to afford a workshop for demonstrators and students, with an intimacy and thoroughness that cannot be allowed in the large public schools. And, as a corollary, it is essential for the student to obtain a part of his experience in large public schools, apart from the special conditions of the Training Colleges, so that he may become accustomed to the ordinary conditions and limitations of the teacher's life.

"It seems necessary to enter fully into these points of organisation and control because the problem is comparatively new to those who organise Education, and grave errors may be easily committed unless the ground is carefully surveyed.



"From the standpoint of the public funds the expense would not be great, even if every Training College were equipped with a useful Demonstration School of some 200 scholars. At the time when public opinion recognised the need for proper equipment of laboratories and art rooms, a grant of £3 per student was found enough to meet the demand, and a grant of a similar kind would meet the present case, if some additional help were provided for buildings at the start. Nor would this aid be entirely an additional burden on the public purse, for the children educated at a Demonstration School need to be taught somewhere, and if they were not received in such a school additional accommodation would be required for them in neighbouring schools.

"If, therefore, the Board of Education can once be induced to accept the principle of approving such schools for this one purpose as part and parcel of Training College equipment, there would not appear to be any serious difficulty adopting a suitable mode of organisation."

## REVIEWS.

*English High Schools for Girls*, by S. A. Burstall.  
(London: Longmans, Green, & Co.).

This book is an attempt to define generally the scope and work of a Girls' High School, as being the best kind of Secondary Day School for girls. The writer does not fail to recognise the very anomalous character of the word 'secondary,' and the diversity of type it may embrace, and she endeavours to a certain extent to localize different classes of schools, and to show their adaptability to the needs of particular sections of the population. Not unnaturally, however, as may be inferred from the title, it is the High School *par excellence* which is chiefly considered, although much of what is said is applicable to teaching generally. The large High School with its average of 400 to 500 pupils commends itself to the writer's mind; many of the details of practical working set forth are only practicable in a school of such a size with its possibilities of parallel classes and a large staff. It is open to question whether the tendency for pupils from smaller secondary schools to enter the larger school at the late school age of 15 or 16 for a three years' course, is desirable either for the smaller school or for the individual pupil who follows the practice.

An interesting feature of the book is the method in which it traces the development of girls' education in England from its earliest beginnings, and also its employment of constant comparison with other systems obtaining abroad.

Regarded from the point of view of an educational expert or of one familiar with the intricacies of the questions with which it deals, the book at times would seem to enter into almost unnecessary explanations upon a few particulars, but, generally speaking, its clear arrangement and comprehensive treatment, in so far as is possible in a limited space, of all sides of school life, should make it most valuable. Various vexed educational questions are discussed and illustrated by concrete examples from the writer's own experience. Especially interesting are the chapters dealing with the position, tenure and salaries of assistant mistresses; it is gratifying to see that on these most important questions the writer does not hesitate to sympathize warmly with the assistant mistresses' point of view.

In discussing the problem of the specialist system *versus* the class teacher plan various suggestions are offered; it is always difficult to settle how to give a mistress enough work with her own form to enable her to gain that hold over them which is the great essential of all true discipline, and at the

Some of the combinations of subjects suggested seem to make too great demands upon the individual teacher. The book contains valuable chapters on Discipline, Form Management and Social Life in a day school in addition to other subjects too many to enumerate. That section which deals with Education as a preparation for life is most interesting; it contains suggestions as to the possibility of including domestic training in the school course of at least some of the elder girls; some of these plans would not of course meet with universal approval, but they certainly present an endeavour to solve a difficult problem in the education of the modern High School girl.

The book is eminently practical; for a young teacher beginning work in a secondary school, or for a student in training, it should be of great value, and the more experienced teacher anxious to learn more of educational practice will find it most suggestive. It is, moreover, a book that might well be put into the hands of the intending elementary teacher, for there is often considerable ignorance among these students as to the possibilities and advantages of a good secondary school and some tendency to deprecate methods and ideal which are not familiar to them. S. E. S. R.

*Studies in Education during the Age of the Renaissance, 1400 to 1600*, by W. H. Woodward. (Cambridge University Press).

*Pioneers of Modern Education, 1600 to 1700*, by Professor J. W. Adamson. (Cambridge University Press).

These works are a sign of the times. Forty years ago Quick wrote: "In the History of Education not only *good* books but *all* books are in German or some other foreign language." The first edition of his "Educational Reformers," though consisting of only five hundred copies, was not exhausted till the price had been reduced from 7s. 6d. to 3s. 6d., and it had been exhausted twenty years before the publishers ventured to recommend a second edition. When the existence of a theory of education was ignored or denied, and belief in the possibility of teaching the art betrayed connection with elementary schools, who was likely to want to learn anything about the history? And yet the history is not only interesting in the study but profitable in the class-room. If Lancaster and Bell, for instance, had known that the monitorial system had often been tried and found wanting they would not have thought it worth introducing again, and still less worth quarrelling about the honour of inventing.

The days when Quick was a voice crying in the wilderness seem remote now. Teaching has become more than a trade whose few dodges are to be picked up by experience, and though publishers do not consider us ready for a cyclopædia

even on the scale of Buisson's (let alone Raumer's or Schmid's) they have given us sufficient books on the history to fill a shelf. These may deal with particular men, with particular movements, or (like the two works under notice) with a particular period.

The Renaissance made so vast a change in men's intellectual interests and the Reformation (with which it is involved in Protestant countries) made so vast a change in men's views of life that corresponding changes were inevitable in schools which train the intellect and prepare for life. Professor Woodward deals with the fifteenth and sixteenth centuries and Professor Adamson with the seventeenth. The centre of gravity of the first is therefore in Italy though he gives a chapter to England, and the centre of gravity of the second is in England though he gives chapters to Comenius, the "Academies," de la Salle, and Francke. Adequate criticism of each book would demand a long article, and space can be made only to say that both authors write as those having authority and not as the compilers. Their industry is equalled only by their learning. Their statements are based not on what somebody else has said but on what they themselves have discovered by diligent examination of the original authorities. If any one interested in education as a humanising process and not as a battle between the sects has not yet read either, he should lose no time in giving himself both pleasure and instruction. D. S.

*The Child's Mind: Its Growth and Training*, by W. E. Urwick. (London: E. Arnold).

*An Introduction to Child Study*, by W. B. Drummond. (London: E. Arnold).

*Suggestion in Education*, by M. W. Keatinge. (London: A. & C. Black).

Of new books dealing with some of the many psychological aspects of education the name is legion. Surely this is a symptom that the charge so often and so glibly brought against teachers that they concern themselves with the matter they teach, but consider little, if at all, the living beings to whom they teach it, is rapidly losing whatever verisimilitude it may ever have had. And, indeed, this charge has never been more than half a truth. Teachers in daily contact with children could not help but get a deeper, or less deep, insight into their minds and characters: how else, indeed, could generations anterior to "our own enlightened age" have succeeded in educating—i.e., in fitting for life—those who should come after them; And it is to be presumed that none will be bold enough to deny that generations of men and women who did their duty in life, who advanced the bounds of knowledge,

and who produced inestimable treasures of literature and art lived before the nineteenth century. And if this be granted then we have the dilemma that either the study of the being to be educated is not essential to giving a good education, or else that such study is not a modern discovery. "Rousseau," says Dr. Drummond (p. 74), "first taught emphatically the doctrine that all education should be based on a study of the being to be educated," and we have frequently heard the same statement made by others. We can only advise those who make such a mistake to read the works of some of the great writers on education from Plato onwards. The force of the contention that it is the duty of all who undertake to educate children to study them in every rational way is not increased by vague—and unfounded—vilification of those who have gone before us.

Now such study is essentially of individuals, and average results are of little avail; indeed, they are positively misleading if they are taken as anything more than abstract unrealities. The true study is continuous and partially unconscious. We grow into knowledge of our children through our daily and hourly contact with them, and when there is true sympathy between teacher and child that knowledge is often very accurate and surprisingly full. Does this argument imply that a study of "psychology" is of no avail? By no means. Such a study is of the utmost value in so far as it makes the half unconscious study inherent in the very life of the class-room a more fully conscious and enlightened study; in so far as it gives knowledge which aids the interpretation of the outward manifestations of the child's inner life; in so far as it helps the teacher to distinguish the abnormal from the normal; above all, in so far as it increases sympathy with child life. This, indeed, should be its most marked result, for, as sympathy is impossible without some understanding, increased understanding should mean increased sympathy. But if once the study of his or her pupils becomes for a teacher mainly a means to the end of drawing out statistical tables, or to that of making minute analyses of the facts of soul life, then we hold that this interest is one antagonistic in essence to the real work of a teacher. This is the point of the objection to the absorption of teachers in minute analytic psychology raised by Professor Munsterberg—a point of which Dr. Drummond appears to miss (pp. 23-24).

The books, then, which seem to us to be of most help to a teacher in this matter are those which fix his attention on mental life as a real concrete process, not those which make minute analyses of abstract aspects of that life. Among such books we should give an honourable place to those of Mr. Urwick and Mr. Keatinge. The former is the more comprehensive in its treatment; the latter, as its title

suggests, confines itself to one topic, but that a most important and somewhat neglected one. Mr. Urwick's chief contribution to clearness of thought is the prominence he gives to the distinction between immediate and final values, and to the fact, "that immediate values cannot be directly taught, whereas final values can." (p. 116). It is, indeed, to confusion between these two that much of the ineffectiveness of teaching is due. With all Mr. Urwick's positions we are not in agreement; but with this, his main thesis, we cordially sympathise. We think he fails to maintain his contention in chapter viii. that Logic does not contribute to the *theory* of education. Indeed, the whole of his own theoretical treatment rests on Logic, and, if the doctrine of method be part of the theory of education, then obviously, Logic, as essentially an analysis of method, is pertinent. To other less important points also we might take exception, but as our object is emphatically to commend the book we will say no more in adverse criticism than to regret that Mr. Urwick has not seen fit to give his readers that indispensable tool for getting the full value out of his book—an Index.

Mr. Keatinge's thesis is that the indirect inculcation of ideas of conduct is much more likely to be effective than direct exhortation. From a consideration of the influence of suggestion in hypnotic states he advances to an analysis of suggestion in ordinary life. Throughout, he shows an intimate knowledge of the English schoolboy, especially the variety to be found in our Public Schools, and of the boy's attitude towards suggestions as to conduct which conflict with his own moral code. To support his thesis Mr. Keatinge gives us a very ingenious analysis of subconscious mental process (pp. 143-7). Did space permit we would quote a number of the good things which are so plentifully strewn throughout Mr. Keatinge's book. As it is we must content ourselves with expressing our conviction that the book is emphatically one of those which every lecturer on education should read and ponder, and which should be put into the hands of our more cultured and thoughtful students.

Dr. Drummond's book has for its purpose the promotion of "Child-Study," by which "is meant the study of children by the methods of modern science." But when one reads his chapter (v.) on "the methods of child-study," one finds little indeed of that rigidity and exactness of method which is of the essence of modern science. As Mr. Keatinge says: (p. 153) "Mind cannot be measured, it can only be valued." With much that is done in America under the name of child-study Dr. Drummond is in very imperfect sympathy, and, indeed, the average Englishman cannot but recoil from the kind of questions so often to be found in "*questionnaires*" hailing from the other side of the Atlantic. Indeed, on the



general question as to direct prying into a child's inmost feelings we are in close agreement with Mr. Urwick's remarks (pp. 209-211); and, of course, our acceptance of Mr. Keatinge's position is quite antagonistic to the use of this method of investigating child life. No doubt there are matters in mental life into which enquiry may be made by experimental methods. Mr. Keatinge records some in his third chapter. But a study of such examples brings out clearly the ambiguity of the results, of which various interpretations are given. It further illustrates the danger that, unintentionally, suggestions may be made to the children experimented upon which are altogether to be deprecated, as, for instance, that the experimenter does not regard the law of truth as at all inviolable. And what amount of scientific accuracy can be expected to mark "the ~~the~~ come of a *questionnaire* addressed to adults, who were invited to recall their childish fibs or instances of being unjustly accused of falsehood." (Drummond, p. 288)? Do not let us be misunderstood. It is not to rational study of children we object but to the absurdities and exaggerations which attend this movement in the hands of persons whose zeal exceeds their discretion, and who in their hunger for answers to questions do not hesitate to pry into the most sacred and innermost sanctuaries of the soul. As we have indicated, Dr. Drummond does not altogether approve these extremes: unfortunately, as we cannot but think, he does not explicitly condemn them.

When we turn from this question to the contents of the book before us we find much that we can commend without reserve. Chapters vii. to xiii. which deal chiefly with the observation of the physical nature of the child, and with physical manifestations of fatigue, are excellent. The exposition is a model of lucidity and of selection, and can be unreservedly commended to the attention of serious students of education. The other chapters also contain much that is suggestive and helpful; but, for the reasons we have indicated above, we do not find them as uniformly valuable as those which have a more directly medical reference. J. W.

*Every Day Ethics*, by Ella L. Cabot. (London: George Bell & Sons.)

This book is a suggestion for the solution of a problem which schools are bound to face before long: namely the practical teaching of the proper conduct of life. The method suggested by Mrs. Cabot is certainly calculated to produce clear thinking and to refine moral standards; yet it does not impose on children rules of conduct which they cannot understand and will not turn them into absurd prigs nor bore them into revolt against the very words goodness and badness. A story or poem having reference to some moral

question is to be read to the children, questions are then set which are to be answered in short essays, and when the teacher has read and marked the essays, the special problem is to be discussed by the class under the teacher's guidance. When all opinions have been heard and considered, the results are to be shortly formulated and written on the blackboard. Each chapter is a discourse indicating roughly the probable course of a lesson. Throughout attention is concentrated on practical problems; illustrations from everyday difficulties of domestic and social action are numerous. The author has obviously been deeply influenced by the methods and conclusions of James. She lays great stress on the importance of a cultivation of insight and clear thinking. She insists on the supreme value of a strong permanent interest in life, normally the career chosen as a means of livelihood, and groups and explains the virtues as means to the complete working out of that interest. A thoroughly intelligent teacher, using critically the method here suggested, might arouse children's interest in problems of conduct, and clarify and deepen their moral ideals. But an uncritical use of the book would lead to total failure. A teacher of practical ethics on this method must be a man of original and independent outlook on life, and yet be capable of winning the complete sympathy of his class. For he must elicit and criticise *their* opinions, not impose his own. Probably the period of education in which this method could be used is limited. Young children have too small an experience of life to enable them to appreciate and discuss problems of conduct. Students of college age should go deeper, for Mrs. Cabot raises no questions concerning ultimate standards. Hedonism and asceticism are not even named; neither the freedom of the will nor the immortality of the soul is discussed. But within certain limits and under the guidance of a skilful teacher, children would by this method come to understand something of the complexity and responsibilities of life, and to realise that goodness is not some mystic quality, to be attained quite apart from the main interests of life, but is simply the way in which each man by fully developing his own nature and at the same time meeting the demands of others upon him, may live his life best. M. A.

*Psychology for Teachers*, by C. Lloyd Morgan. New Edition, rewritten. (London: Edward Arnold).

A book on this subject, written more than thirteen years ago by a distinguished man of science, stands in no need of lengthy notice in this place. The various chapters have been practically re-written for this edition; the size of the book is increased from 250 to 300 pages; and the old commendatory preface by the late Sir Joshua Fitch, having served its

purpose, disappears. Like the same author's *Comparative Psychology*, the book is written in an extremely interesting way. In this respect, as in others, it will not suffer by comparison with anything that has been written by a psychologist for teachers.

T. R.

*A Primer of Psychology*, by Laura Brackenbury. (London: John Murray).

Every page of this book bears witness to the fact that its author has studied psychology under the best of guidance, and that she knows her subject thoroughly. The point of view adopted is that of Professor James Ward in the well-known *Britannica* article, but the work of Professors Stout and Wm. James has also been drawn upon. The book seems to us as clearly and simply written as is compatible with what appears to have been the writer's aim; in particular, it is to be commended for its frequent and apt illustrations. The late Professor Jevons held that exercises are as necessary in the study of logic as in that of mathematics. Miss Brackenbury "goes one better," apparently holding that exercises are as necessary to the student of psychology as to the student of logic. In our opinion she is entirely justified, and we regard the "Questions and Exercises" at the end of the book as a thoroughly commendable feature. The Glossary is also useful, since psychological terms are often used in very different senses by different writers.

We do not doubt, then, that Miss Brackenbury has done a real service in writing this book. We are not sure, however, that she has done the service that she intended, or that most people would have expected. Let not the unwary lecturer in a training college, for example, be beguiled into adopting this book for class purposes, merely because it is small and apparently manageable, and is called a primer. Frankly, we do not think that the average training college student would make much of it. It is fair to say that the author makes no pretence whatever of writing for that person. At the same time, is not such a student the very person whose needs ought to be met, in this particular subject, by a "primer"?

T. R.

*A Primer of Logic*, by Miss E. E. Constance Jones. (London: John Murray).

This book is a brief sketch of the outline of Logic; it does not claim to be more comprehensive in its treatment of the subject. So far, however, it is very clear and methodical in arrangement, but at times one could wish, if space permitted, for a little more explanation. Possibly the method of treatment, which is chiefly deductive, is such as does not so well lend itself to longer exposition. This is especially the case

in the section which deals with the relation of Logic to knowledge. The question of the scope of Logic might with advantage be summed up once more at the end of the book, and such a problem as appears among the first of the appended sets of questions, *i.e.*, "Discuss the scope of Logic" is too comprehensive for the student who has merely read the first chapter, unless he is simply required to give a reproduction of that chapter. The chapters on Induction and the Inductive Syllogism seem particularly clear and are illustrated by numerous examples.

The book is intended for students, but not especially for those taking Logic as part of the course in Education prescribed for a Teachers' Diploma or for the Government Teachers' Certificate. It is doubtful whether such students require so much formal Logic; the most useful study for them in their preparation for the teaching profession is in the same course embracing the practical application of the principles of Logic to the exigencies of the classroom. As a useful book of reference on more formal points the Primer would be most helpful.

S. E. S. R.

*The Practice of Instruction*, ed. by Professor J. W. Adamson. (London: National Society's Depository).

This book is the latest example of a mode of treating the problems of teaching which has found expression successively in the well known XIII. Essays, and in the works edited by Messrs. Barnett, F. Spencer, and Welton. In all these books we have, within the compass of a single volume of moderate dimensions, first a general treatment of the subject by the editor, and then a series of chapters on various branches of study by specialist contributors. The characteristic feature of the two most recent of these works—those of Professors Welton and Adamson—is the greater adequacy of the introductory part; and the volume before us is still further distinguished by its frequent references to foreign as well as to English pedagogic literature, and by its refusal to ignore the burning topic of religious instruction.

Assuming for the moment the wisdom of the general lines upon which it is constructed, we desire at once to bear emphatic testimony to the general excellence of Professor Adamson's book. His own introductory chapters, extending to one quarter of the book, are, we think, sound and suggestive. They are pervaded by a truly philosophical spirit, without being encumbered by a philosophical terminology which could only embarrass the average student of education. Dr. Headlam of course handles the question of Religious Instruction with a frankly denominational bias, but many of those who differ from him on this point will thank him for his equally frank advocacy of embodying the results of sane

criticism in our Bible lessons. He is, they will think, surely right in holding that to teach as historical fact that which is demonstrably not historical fact, is to sow seed which will in due season bring forth a crop of "religious doubts."

The names of Dr. Herbertson in connection with Geography, of Dr. Percy Nunn and Miss von Wyss in connection with Natural Science and Nature Study, and of Dr. Rouse and Mr. W. H. S. Jones in connection with the teaching of Latin and Greek, sufficiently attest that what is written on these subjects is well worth the attention not only of those who are preparing for the teaching profession, but also of experienced teachers. Miss M. A. Howard deals with the teaching of History; Mr. A. H. Baker provides a useful chapter on the teaching of Mathematics; and Mr. W. Mansfield Poole expounds the reformed method of teaching Modern Languages. To pronounce authoritatively on this mass of varied material is probably beyond the powers of any one person. The present reviewer, at any rate, must desist from the attempt.

And this leads us to make a few closing remarks upon the general scope of the book. Three thoughts have frequently occurred to us whilst we have perused it. First, we have never yet met the person who could read much more than one-half of its contents with real interest and profit. Secondly, some at least of the contributors have, unless we are much mistaken, felt sadly hampered through lack of space. Thirdly, even so, some of the most vital parts of a modern curriculum have not been considered, because, as the editor says, their inclusion would have meant "swelling the bulk of the whole work intolerably." From all which we are driven to the conclusion that the future does not lie with books conceived on the lines of this one, excellent though it is in its way. The cause of sound instruction will, we think, be better served (1) by the sort of book which contains a general treatment, by one hand, of the problems of pedagogic method, comparable with the logician's general account of the problems of scientific method, and (2) by separate treatises on the teaching of the various branches of the curriculum, written by specialists, and giving that amount of detail which alone can make effective appeal to practical teachers. To attempt the whole of this within the limits of a single volume is, we fear, to achieve the proverbial result of trying to sit upon more than one stool at a time.

T. R.

*The Growth of English*, by Professor H. C. Wyld.  
(London: John Murray).

The aim of this book is to provide material for beginners

Colleges. The distinctive character of the work lies in the method in which the matter is presented, and for that reason it is most helpful and suggestive to both students and teachers. The method is briefly as follows:—By appeal to *his personal observation and experience*, the student is led to realise (a) the relation between thought, speech, and written word; (b) the classification of sounds according to the use of the vocal organs; (c) the influences on sound (1) of other sounds (2) of stress; (d) the present day variations in English pronunciation, grammar, vocabulary and idiom, due to differences of interest and occupation, of class, of place, of abode, and of age; (e) the position and characteristics of standard English; (f) by application of (c), the actual changes in present day English speech. This portion of the subject is to be constantly tested and verified by the student by observation of his own speech and the speech of those around him and thus a groundwork is prepared, on which the study of the variations in the history of the language can be based.

The second portion of the book deals with the relation between speaking and writing and the method of discovering the pronunciation of English sounds during any period in the past by the spelling and use of rhyme prevalent at the time: by comparison with dialects and with other languages; and finally by the testimony of contemporary writers. By means of copious examples and quotations sufficient guidance is given to the student to enable him to solve similar questions on his own initiative. Then follows a brief account of the history of the language, and, as before, constant reference is made to the principles laid down in the earlier chapters and frequent examples and illustrations are given.

The concluding chapters treat of such questions as the anomalies of English spelling; the development of vocabulary; inflexion; and finally the place of English among other languages. The author, having realised the difficulties of a beginner in approaching this subject, has overcome these difficulties most effectually. Throughout the book, material and suggestions for personal research are given to the student, which transform what has often been a mere compilation of uninteresting facts, memorised with difficulty, into a living and stimulating study. Incidentally, many valuable hints are given to those who are engaged in teaching spelling, reading and composition in schools.

The value of the book to teachers can be best indicated by quoting the author's own words: "It is my earnest hope that those chapters especially which deal with the varieties in modern English speech may not only prove interesting to



*Lessons in Practical Hygiene*, by Alice Ravenhill. (Leeds: E. J. Arnold).

*School Hygiene*, by Dr. Robert Lyster. (London: University Tutorial Press).

One of the most evident changes in educational thought of the present day lies in the growing importance attached to the study of Hygiene. So far, it must be regretted, the change has been more evidenced in theory than in practice. Real Hygiene, in spite of Government Regulations, Training College Curricula, and numerous writings and conferences, is still absent from school practice. The chief difficulty in introducing Hygiene into schools consists in the paucity of knowledge of the subject possessed by the majority of teachers, and until more confidence is gained through a deeper acquaintance there will necessarily be a diffidence on the part of teachers to teach Hygiene otherwise than by occasional reference.

These two books are written to supply this necessary information. Miss Ravenhill's book is very wide in its range and detailed in its presentation of matter. The contents include physiology, cookery, personal and school Hygiene. Throughout, notes of lessons are frequently given, illustrated by experiments, together with many valuable teaching hints.

Mr. Lyster's *School Hygiene* is more limited in range and deals more especially with Hygiene in school. The matter of the book includes consideration of the School Building, of the Scholar, and of School Medicine and Surgery, and is logically and clearly presented.

Both books are written by expert teachers of Hygiene, whose qualifications give authority to the facts and principles they urge.

J. M. F.

*Outlines of Physiography*, an introduction to the study of the earth, by A. J. Herbertson. (London: Edward Arnold.)

This book is a distinct advance on the ordinary text-book of Physiography. It gives a lucid and methodical outline of the major movements and changes that take place on the surface of the earth, and of the varieties of land forms produced by the action of the internal and external forces acting on the earth's crust. A pleasing feature is the discussion of the organic activities that occur, and another that of the action of the physical conditions on the distribution of organisms. It is seldom that these are referred to in so broad a manner in an introductory book on Physiography.

*Tecor* *J. Gunstall.*  
*Donum J. Baker.*  
 DE ARTE *β. VI. 16.*  
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 DI, LIBRI QVATVOR

CVTHEBERTI TONSTALLI,  
 haectenus in Germania nuls  
 quam ita impressi.

IOAN. STVRMIVS.

ARITHMETICAM CVTHEBERTVS  
 Tonstallus praeceteris dilucide & pure tradidit: Atque  
 ita tradidit, ut ars ipsa dum hic author extat, conten-  
 ta scriptore; doctorem non maximopere aliquem re-  
 quirat. Non nego, posse ex alijs quoque disci: sed  
 hic docet erudite, perspicue latine, id quod  
 non faciunt ceteri: nec abest longe a  
 perfectione, qui eius praece-  
 pta intelligit.

ARGENTORATI, EX OFFI.  
 Knobloch. per Georg. Macharop.

Anno MDLI.

science of Physiography depends, and to the gradual unfolding of the subject through these. A beginner should be introduced to each division of the science by reference to the actual features of the lithosphere, hydrosphere and atmosphere, of which he could obtain cognizance by actual observation and experiment, rather than by discussions on the earth as a whole. The book would also be of much greater value if a larger number of diagrams, especially in the chapter dealing with earth forms, were included. With a good teacher the book should prove of great value, and a student should obtain from its perusal a broad and clear idea of the main features of the world.

D. W.

*Exercises in Physics for the use of schools*, by J. H. Leonard and Professor W. H. Salmon. (London: John Murray)

This book, which comprises 99 pages, has been drawn up to supply science teachers with examples for class use or home tasks, and can be obtained either with or without answers. The examples, which cover all branches of elementary physics, seem to be carefully graduated, and the answers, as far as a short trial goes, accurate. Material for graphical representation is given in the last eleven pages of the book. This is no doubt convenient from some points of view, but a better arrangement would have been to incorporate these in the general examples and encourage free use of graphical methods at all times, instead of placing them apart.

The notation in the mechanics' examples is satisfactory and free from those traditional inaccuracies which mar many books. In some of the electrical questions however there is a tendency to omit the names of the units, e.g. "a condenser which has a potential of five units" (p. 78) but this occurs only occasionally and as far as can be seen only in electrical questions.

The book should be useful to the busy teacher of large classes.

G. H. T.

*Education Papers.* First Series. Armstrong College, Newcastle-upon-Tyne.

These papers, the production of the old students association, are an unpretentious contribution to educational knowledge. A noteworthy article is a symposium upon "A Training College Course;" the replies of a large number of old students upon the value of the course and the suggestions for improvement exhibit candid criticism and valuable suggestions. "Training College Students and Rural Schools" gives a detailed account of excursions lasting for a week that the

Newcastle Training College makes each year to Keswick, Ambleside and other places; in the "School Walk" a further College experiment is described. "The Fulwell method of Teaching Reading" is by a late student; it is a method that has special characteristics.

Among the other articles is a scholarly account of "De Arte Supputandi," a sixteenth century arithmetic by Bishop Tostall. A copy of the title page of this book is reproduced and is interesting, seeing that the edition described was printed at Strasburg, and contains a commendatory notice by Sturm. "Cuthbert Tostall has written a book on arithmetic that is clear and pure above and beyond all others: and he has so treated the subject, that, so long as this author is extant, the art of arithmetic stands in no great need of any exponent. I do not deny that there are things to be learned from others also, but this writer expounds in a learned and clear Latin style, which is not the case with all writers, and he who understands Tostall's precepts will not be far from perfection." The "Papers" are an indication of activity. There must be a large amount of valuable information upon subjects relating to education in the Training Colleges of the country, and it is desirable that such information should be available in a printed form.

# Training College Record.

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## INTRODUCTION.

The Training College Association at the Annual Meeting determined that the "Record" should continue, the next number will be issued in the Autumn.

The value of the "Record" will depend upon the activity of the members, and the Editor will be glad to receive proposals for Papers. There must be in the experience of Training Colleges information and conclusions that are of value to those engaged in the Training of Teachers. The papers of Professor Green upon "Experiment in Education" open out a wide field, and contributions adding to the information he has provided, and giving the results of experiments to test the validity of the views advanced would be appreciated by all workers.

The Editor hopes that he will be able to publish in the Autumn number some new contributions towards "Experimental Psychology," with pedagogical import, by well-known investigators in England. Professor Green has referred to Professor Meumann's work in this direction.

The Editor expresses his thanks to the writers of Papers and Reviews.

M.R.W.

ARMSTRONG COLLEGE,  
NEWCASTLE-UPON-TYNE,  
February, 1909.

## Training College Association.

*President—*

REV. R. HUDSON, St. Mark's College, Chelsea, S.W.

*Ex-President—*

PROFESSOR MARK R. WRIGHT, Armstrong College,  
Newcastle-upon-Tyne.

*Vice-Presidents—*

MISS BISHOP, St. Gabriel's Training College,  
Kennington, S.E.

MR. DAVID SALMON, Swansea Training College.

*Honorary Secretary and Treasurer—*

MR. H. E. GRIFFITHS, St. John's College,  
Battersea, S.W.

## THE ANNUAL MEETING.

THE SEVENTEENTH ANNUAL MEETING was held at the Caxton Hall, Westminster, S.W., on Friday, December 18th, 1908.

## MORNING SESSION—10 A.M.

1. The proceedings were opened by the Chairman, Professor Mark R. Wright, who called on the Secretary to read the Minutes of the previous meeting. The Minutes were confirmed.

2. Rev. E. Hammonds moved, and Miss Birch seconded, the adoption of the Annual Report. The motion was carried unanimously. Miss Hale moved the adoption of the Balance Sheet, which was seconded by Miss Bishop, and carried.

3. Miss Smith and the Rev. S. Blofeld were appointed scrutineers for the voting papers for the election of Vice-Presidents.

4. *Training College Record*.—The adoption of the Balance Sheet was moved by Professor Wright. This was seconded by the Rev. R. Hudson, and was carried. It was proposed by Rev. E. Hammonds, and seconded by Miss Hale, that the *Record* be continued. Carried. Rev. E. Hammonds moved for the appointment of an Editorial Committee for the *Record*. The proposition was not seconded and, after discussion, was withdrawn. It was agreed that Professor Wright be requested to edit the *Record* for the year in consultation with the President.

5. The result of the voting was now announced. Miss Bishop and Mr. Salmon were elected as Vice-Presidents. Mr. Griffiths was again elected as Hon. Secretary and Treasurer.

6. A vote of thanks to Professor Wright as President for the past year, also to Mr. Griffiths as Secretary, was proposed by Miss Bishop and seconded by Mr. Gettins. Carried.

7. The new President (Rev. R. Hudson) then took the chair and read his address. It was proposed by Prebendary Hobson and seconded by Miss Manley that the President be thanked for his address, and that it be printed and circulated. Carried (see p. 15).

8. A paper on "Reading Aloud" was read by Principal Burrell (see p. 33). Professor Wyld of Liverpool University also addressed the meeting on the same subject (see p. 38). The discussion is reported on p. 50. Papers on "Literary Expression in English Composition" were read by Miss Stephenson (see p. 52) and Mr. Reed (see p. 57). The discussion is reported on p. 61.

9. Principal Spafford moved:—"That the attention of the Board of Education be called to the fact that

a large number of the students in Training Colleges who completed their training in July last are still without appointments, and that in the prospect of a further large increase in the number of Training Colleges by the Education Authorities, this condition is likely to be considerably intensified unless the Board of Education or the Education Authorities devise means to secure a larger proportion of trained teachers in the schools; and that the Board of Education be asked to receive a deputation on the subject." The motion was seconded by Professor Wright and was carried. It was referred to the Committee with instructions to act.

#### AFTERNOON SESSION—2 P.M.

Dr. Airey and Mr. Vesey, H.M. Inspectors, were present.

10. The resolutions already passed by the Association in favour of the earlier issue of the Training College Regulations and the results of the Examinations for the Preliminary Certificate were re-affirmed on the motion of the Rev. H. Wesley Dennis, and seconded by Mr. D. Salmon.

11. Lieutenant Grenfell then opened a discussion on "Physical Training in the Colleges," reading a paper on the same (see p. 70). A discussion followed. A vote of thanks to Lieutenant Grenfell was moved by the Rev. H. Wesley Dennis, seconded by Miss Manley and supported by Principal Burrell and Mr. Gettins. The vote was carried unanimously.

12. Rev. E. Hammonds moved, and Rev. J. D. Best seconded:—(a) "That the Training College Association should be represented on the new Teachers' Registration Council, and that application be made for such representation." (b) "That service on the staff of a Training College be recognised as a qualification for a place on the Register." Principal Loring and Miss Manley both took part in the discussion. The resolutions were carried with the following alteration in (b):



"That service on the staff of a Training College be recognised as one of the qualifications for a place on the Register." Rev. E. Hammonds' address is given on p. 66.

13. The Rev. Canon Morley Stephenson (in the absence of the Rev. H. Wesley Dennis) moved the following resolution:—"That this Association regards the lowering of the age of eligibility for admission to Training Colleges as inadvisable, and expresses its opinion that the admission of such candidates, without some proof of teaching power and ability based on practical experience, tends to lower the standard of professional efficiency, and will inflict serious hardship on those who at the end of their course prove unfitted for the office of teacher." The motion was seconded by Miss Manley, and carried *nem. con.*

14. Rev. J. D. Best moved the resolution in Miss Forth's name, namely—"That the service of Certificated Teachers in Training Colleges continue to be regarded as 'recorded service' for the purposes of superannuation." Miss Birch seconded the resolution, while Dr. Workman opposed it. The motion was carried.

15. *Sectional Meetings.*—The report of the Sectional Meetings on "Practising Schools" (p. 28), "Correlation of Mathematics, etc." (p. 29), "Records of Practice" (p. 31), and "Music" (p. 31) were received.

The Reports were accepted and were referred to the Committee. The Principals of Whitelands and Westminster Colleges were cordially thanked for allowing the Sectional Meetings to be held at their Colleges.

16. A letter from the British Science Guild was read by Mr. Griffiths as to the Training College Association co-operating with the Guild in bringing the matters under consideration (in their Reports enclosed) before the proper authorities. This was referred to Committee.

\* 17. It was agreed that all resolutions of the Annual Meeting be referred to the Committee, and that the Committee be empowered to act.

18. A hearty vote of thanks was accorded to the President for his conduct of the meeting.

## REPORT FOR THE YEAR 1908.

### *To the Members of the Association.*

Your Committee has pleasure in submitting the following Report for the past year:—

The Association numbers 291 members, and 67 Colleges (Residential and Day) are represented. It is worthy of notice that this is an increase of 51 members and of 6 Colleges during the year.

The Annual Meeting was held on December 17th, 1907, at the National Society's House, Westminster. There were two sessions, and the attendance at both was good.

The Committee has met twice during the year (in March and October), and one Sub-Committee Meeting has been held.

A copy of the following resolutions (passed at the last Annual Meeting) was sent early in the year to every educational authority in England and Wales:—

1. "That no student should be received into a Training College directly on the conclusion of his 'Bursary' period, without having had some substantial experience (say not less than three months) in the regular work of a Public Elementary School, under the direction of the Head Teacher and staff."

2. "This Association is of opinion that it is necessary, in the interests of efficiency, that students, before admission to a Training College, should have acquired facility in the following exercises:—(1) Clear Articulation. (2) Vocal music. (3) Manual instruction, and (for women) needlework."

The Association believes that the necessary training should be given during the school period, when habits are readily formed, and that the function of the training College is to train students in the application of these exercises in school.

The Association feels that this resolution becomes strikingly urgent having regard to the "Bursar" System.

The response was very gratifying, practically all expressing themselves in entire agreement with the resolutions. A further resolution on the same subject will be brought forward at the Annual Meeting.

The "Training College Record" was published in March under the direction of Professor Mark R. Wright, the retiring President. At the March Committee Meeting it was decided to continue the publication for 1909 on the same lines as the first number. The question will again be brought up at the Annual Meeting, when the Report and Balance Sheet of the publication for 1908 will be presented.

The question of the Educational Congress (proposed by the Teachers' Guild), and referred to the Committee from the Annual Meeting, was brought forward at the March Committee Meeting, and it was then announced that the idea had fallen through.

Circular 563 (Elementary School Teachers' Superannuation Act) has been discussed in Committee at some length, and it was decided to put it on the Agenda for discussion at the Annual Meeting.

The difficulty of finding posts for the students who left the Colleges in July last has caused a good deal of anxiety. The subject was considered at the October Committee Meeting, and it was then decided to get accurate returns from the Colleges. This has been done, and the question of taking any action upon these figures will rest with the Association at the Annual Meeting.

The subject of "Registration" is felt to be an important one for the Association, and therefore finds a place on the Agenda of the Annual Meeting.

The Association was represented at the International Moral Education Congress in September, by Principal Burrell and the Secretary, and the Rev. R. Hudson (President-Elect for 1909), represents the Association on the Committee of the National League for Physical Education and Improvement.

It will be noticed that for the first time, Sectional Meetings have been arranged this year in connection with the Annual Meeting. The need for some such arrangement has been felt for many years, and it is hoped that the experiment will prove successful.

In accordance with Rule 5, the Rev. R. Hudson was at the March Meeting elected President for 1909.

At the October Meeting nominations were received for the posts of Vice-Presidents and Hon. Secretary. Voting Papers have been issued (in the case of the Vice-Presidents), and the result will be declared at the Annual Meeting.

In conclusion, the Committee cordially thank the members of the Association for their continued co-operation and support.

Signed, on behalf of the Committee,

H. E. GRIFFITHS,

*Hon. Secretary.*

## BALANCE SHEET, 1908.

	£	s.	d.		£	s.	d.
Subscriptions—				Deficit, 1907	...	...	2 13 9
247 at 2s. 6d.	...	30	17 6	Annual Meeting—	...	...	
	...	...	...	Hire of Hall	£3	3 0	
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	...	...	...	Sundries	1	0 0	
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	...	...	...	Congress, 1908	...	...	1 1 0
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			£31 3 9				

Audited and found correct,  
(Signed)

E. C. SIMPSON.

December, 1908.

## LIST OF MEMBERS.

The names are in Alphabetical Order in each College.

**Avery Hill, Eitham** (Training

College):

Miss Aldham.  
" Carter.  
" Coleman.  
" Cumberbirch.  
" Ellaby.  
" Exton.  
" Grünbaum.  
" Hall.  
" Hedgeland.  
" Henley.  
" Hooper.  
" Hume.  
" Julian.  
" Macpherson.  
" May.  
" Waterhouse.

**Bangor** (Normal College):

Mr. T. Botting.  
" E. R. Davies.  
" E. H. Harding.  
" D. Harris.  
" H. Williams.

**Bangor** (North Wales Training

College):

Rev. Canon Fairchild.  
" J. G. L. Swann.

**Battersea** (St. John's College):

Mr. T. Ayres.  
Rev. S. Blofeld.  
" H. Wesley Dennis.  
Mr. H. E. Griffiths.  
" E. Mills.  
" H. H. Pells.  
" W. Taylor.

**Battersea** (Southlands College):

Rev. J. Chapman.  
Miss Harry.  
" Holgate.  
" Smiley.  
" Walker.  
" Williams.  
" Winterbottom.

**Birmingham** (The University):

Miss F. C. Clark.  
" Joyce.  
" E. Sowerbutts.

**Bishop Stortford** (Hockerill

College):

Rev. A. E. Murray Aynsley.  
Miss Crook.  
" Fildes.  
" Gwinn.  
" Holman.

**Brighton** (Rose Hill College):

Miss Bell.  
Rev. G. Corfield.  
Miss Marshall.  
" Mockford.  
" B. Mockford.

**Bristol** (Residential College):

Miss Gowan.  
" Kay.  
" Roscoe.  
Rev. J. R. W. Thomas.

**Bristol**—(University College):

Mr. T. S. Foster.  
Miss D. Anstace Odell.  
" Pease.

**Cambridge** (The University):

Mr. Oscar Browning.

**Cambridge** (Homerton College):

Miss Allan.  
" Bodkin.  
" Carter.  
" Cook.  
" Glennie.  
" Hartle.  
" Jackson.  
" Jameson.  
" Salmond.  
" Varley.  
Mr. Wilmot.

**Cardiff** (University College):

Mr. W. Phillips.

**Carmarthen** (South Wales

College):

Mr. H. S. Holmes.  
Rev. Prof. Parry.



**Chelsea** (St. Mark's College):

Mr. O. Breden.  
 „ F. Douglass.  
 Rev. R. Hudson.  
 Mr. J. W. Jarvis.  
 „ A. W. Reed.  
 „ C. G. Stirling.  
 „ C. H. Swann.  
 „ S. G. Teakle.

**Chelsea** (Whitelands College):

Miss Birch.  
 „ Clark.  
 „ Custance.  
 „ Davis.  
 „ Fordham.  
 „ Ivatt.  
 „ Luard.  
 „ Siggers.  
 „ Smith.

**Cheltenham** (St. Paul's College):

Rev. H. A. Bren.  
 Mr. C. H. King.  
 „ F. G. Perrins.  
 „ H. Tinker.

**Cheltenham** (St. Mary's Hall):

Miss Bridgwater.  
 „ King.  
 „ Reynolds.  
 „ Richards.  
 „ Roberts.  
 „ Welch.

**Cheltenham** (The Ladies' College):

Miss F. A. Smith.

**Chester** (Training College):

Rev. J. D. Best.  
 „ D. H. Boyle.  
 Mr. A. E. Chapman.  
 „ C. L. Druce.  
 Rev. A. E. Jackson.  
 Mr. J. Shelley.

**Chichester** (Bishop Otter College):

Miss Beatty.  
 „ Boaler.  
 Rev. E. Hammonds.  
 Miss Hammonds.  
 „ Westaway.  
 „ Wilding.

**Crewe** (Cheshire County Training College):

Miss H. A. Carson.

**Culham** (Training College):

Mr. H. W. Cousins.  
 „ J. S. Davis.  
 „ E. L. R. Evetts.  
 „ C. H. Hardingham.  
 Rev. A. R. Whitham.

**Darlington** (Training College):

Miss J. C. Grenfell.  
 Mr. W. A. Spafford.  
 Mrs. Spafford.

**Derby** (Training College):

Rev. A. B. Bater.  
 Miss Davies.  
 „ Field.  
 „ Rawlinson.  
 „ Southall.  
 „ Ward.  
 „ Williams.

**Durham** (Bede College):

Rev. D. Jones.  
 „ T. Read.  
 Mr. T. W. Powell.

**Durham** (St. Hild's College):

Rev. J. R. Croft.  
 Miss Fish.  
 Rev. Canon Haworth.  
 Miss E. Hindmarch.  
 „ W. Hindmarch.  
 „ Skinner.  
 „ Taylor.  
 „ Thomas.

**Exeter** (St. Luke's College):

Rev. R. H. Couchman.

**Exeter** (Albert Memorial College):

Prof. J. M. Forster.

**Hammersmith** (St. Mary's College):

Mr. A. P. Braddock.  
 Rev. Father Byrne.

**Hereford** (Training College):

Miss S. M. Smith.

**Isleworth** (Boro' Road College):**Kennington** (St. Gabriel's College):

Miss Bishop.  
 „ Cooke.  
 „ Dunn.  
 Mrs. Clare Goslett.  
 Miss Hele.  
 „ Houlston.  
 „ Stephenson.  
 „ Taylor.  
 „ H. Veale.  
 „ Webb.

**Kensington** (Training College,  
St. Charles Square):

Madame O'Flaherty.  
 „ Knight.  
 Rev. J. Worsley.

**Leeds** (The University):

Prof. J. Welton.

**Lincoln** (Training College):

Miss Elwell.  
 „ A. Martin.  
 Rev. Canon Rowe.  
 Miss Turner.

**Liverpool** (Mount Pleasant  
Training College):

Miss M. E. Bellord.  
 „ Winfield.

**Liverpool** (Edge Hill Training  
College):

Miss Collins.  
 „ Cussans.  
 „ Gaskin.  
 „ Hale.  
 „ Lowe.  
 „ Penn.

**Liverpool** (The University):

Mr. J. H. Gettins.

**London** (King's College):

Mr. A. A. Cock.  
 Prof. J. Adamson.

**London** (Training College, South  
ampton Row, W.C.):

Prof. J. Adams.  
 Miss F. J. Davies.  
 Dr. Percy Nunn.  
 Miss Punnett.

**Manchester** (The University):**Newcastle** (St. Mary's R.C.):  
Madame H. Bodkin.**Newcastle** (Armstrong College):

Miss J. Hutchinson.  
 „ S. E. S. Richards.  
 Dr. G. H. Thompson.  
 Prof. Mark R. Wright.

**New Cross** (Goldsmith's College):

Miss F. H. Birley.  
 „ Catty.  
 „ C. Graveson.  
 „ Keary.  
 Mr. W. Loring.  
 „ T. Rayment.  
 „ D. Ll. Savory.  
 Miss H. Brown Smith.

**Norwich** (Training College):

Miss Boulter.  
 „ A. L. Collard.  
 „ E. Dixon.  
 Rev. J. A. Hannah.  
 Miss Hoare.

**Nottingham** (University College):

Prof. A. Henderson.  
 Mr. E. A. Smith.

**Oxford** (Diocesan College):

Rev. T. T. Blockley.  
 Miss Simpson.  
 „ Walker.

**Oxford** (The University):

Mr. G. R. Scott.

**Peterborough** (Training College):

Mr. H. R. V. Ball.  
 Rev. T. Ward.

**Reading** (University College):

Mr. H. S. Cooke.

**Ripon** (Training College):

Miss Goodacre.  
 „ Mander.  
 „ Newby.  
 „ Palin.  
 „ Waterhouse.

**Saffron Walden** (Training  
College):

Miss Campbell.  
 „ Dunlop.

**Salisbury (Training College):**

Miss Allen.  
 Rev. Dr. Baker.  
 Miss Forth.  
 „ Gardiner.  
 „ Grist.  
 „ Montgomery.  
 „ Newman.  
 Rev. Canon Steward.

**Saltley (Training College):**

Rev. Canon Burbidge.  
 Mr. S. W. Coombs.  
 „ W. J. Douglas.  
 „ H. I. Hobbiss.  
 „ W. Miles.  
 „ J. C. Walton.

**Sheffield (Training College):**

Mrs. Henry.

**Sheffield (The University):**

Prof. J. A. Green.

**Southampton (The Avenue College):**

Sister Antonia.  
 Miss M. Coupe.  
 „ C. Fox.  
 „ B. Major.

**Southampton (Hartley College):**

Dr. S. W. Richardson.

**Stockwell (Training College):**

Miss Doran.  
 „ Fisher.  
 „ Heaton.  
 „ Hutchinson.  
 „ Liberty.  
 „ Mackay.  
 „ Manley.  
 „ Mavor.  
 „ Ridgeway.  
 „ Todhunter.

**Swansea (Training College):**

Miss Grierson.  
 „ Rodwell.  
 Mr. D. Salmon.

**Tottenham (St. Katharine's College):**

Miss Austin.  
 „ Barnes.  
 „ Clout.  
 Rev. W. M. Davidson.  
 „ Preb. Hobson.

**Truro (Training College):**

The Bishop of St. German's.  
 Miss Beavan.  
 „ Cooper.  
 „ Fountain.  
 „ Gee.  
 „ Goode.  
 „ Peat.

**Warrington (Training College):**

Miss Bell.  
 „ Blyth.  
 „ Earlam.  
 „ Ferriman.  
 „ Frodsham.  
 „ Hackett.  
 „ Hilton.  
 Rev. H. A. Lester.  
 Miss Perry.  
 Rev. Canon Stevenson.  
 Miss Timewell.

**Westminster (Training College):**

Mr. A. Barriball.  
 Dr. J. H. Cowham.  
 Dr. Dunstan.  
 Mr. J. H. Jackson.  
 Mr. W. T. John.  
 Dr. T. M. Lowry.  
 Mr. E. A. Magson.  
 Mr. Leight Smith.  
 Rev. Dr. Workman.

**Winchester (Training College):**

Mr. A. Davis.  
 Rev. Canon Martin.  
 Mr. H. W. Padwick.  
 Rev. R. A. Thomas.  
 Mr. G. H. Turley.

**Wood Green (Home and Colonial College):**

Miss Drury.  
 „ M. A. Fountain.  
 „ A. Howe.  
 „ Macken.  
 Rev. H. Searle.  
 Miss Stairmand.  
 Rev. D. J. Thomas.  
 Miss Wilkins.  
 „ Wood.  
 „ Wright.  
 „ Young.

**York (Training College):**

Mr. W. T. Phipps.  
 Rev. S. Walker.

**THE PRESIDENT'S ADDRESS.**

When you last did me the honour of electing me to the Presidential Chair of your Association, we were just at the beginning of that upheaval of the Course of Study in Training Colleges, which has gradually led to our present syllabus. We shall all, I think, agree that in breadth of outlook the present syllabus is an immense improvement on the unimaginative form in use, say, ten years ago; it is conceived on more generous and humane lines, specially on the literary side; the course of study in English and History gives scope to the good student, which was conspicuously lacking in the older form of the course of study; the style of question proposed in these subjects in the Board's Examination, also tends to promote an interest in the study of the subjects. In connection with the course of study, I will merely make reference to a few points.

(1) Now that the English syllabus is so ample, it seems hardly possible for the better students to do justice to the subject when tested by a single paper in the Board's Examination; it would seem better to include English, with History and Mathematics, as subjects requiring two papers.

(2) Whatever may be the outcome of the request that we shall no doubt again make from this Conference, for the earlier issue of the Board's regulations, I think that we might well urge upon the Board that appendices C and D of the regulations, containing the syllabuses in the various subjects, might be issued to the Colleges separately, without waiting for the rest of the regulations, at quite an early date, for instance at the beginning of the summer term. The Board should certainly know by that time the studies they wish students to undertake upon entering College in the

following September, and it would make all the difference to the teachers' preparation, and to the careful selection of class books, if thought could be quietly given to the matter during the term.

(3) In those parts of the course of study which demand considerable preparation on the part of the staff, it would seem advisable that the option should be given of using the same syllabus with two successive years of students; in former days it was not unknown, I believe, that certain sets of lecture notes did duty for considerably longer than two years; but it is in many cases more profitable to be in a position to make use of our preparation of one year, in an amplified form for the next year.

(4) Notwithstanding all that has been said on the subject, I still am unconverted on the subject of unclassified examination results. The mark of distinction in a subject no doubt is a guarantee, in most cases, in the Board's Examination of students in Training Colleges, that a high standard has been reached; though I should be sorry to say, that the same is true for the mark of distinction in the Preliminary Certificate Examination. But the system fails in its object, so long as certain subjects do not carry the right to a mark of distinction; I still believe that the best mode of conveying to students and Local Authorities the value of their attainments, is through the issue of a list arranged in three classes, the order in each class being alphabetical; though at the same time the present marks of distinction and notes of passes in optional subjects should be retained.

While the literary side of the question has apparently developed into a fairly quiescent and permanent form, there are other parts of the syllabus in which we get sudden great shocks; year by year changes are introduced on the 1st August, which, if acted upon fully would involve often a complete remodelling of the staff

equipment. While there is everything to be said for the persevering investigation of the best methods of instruction in elementary science, nature study, hygiene, speech training, and physical exercises, I do not care for ready made systems or for thinly-veiled hints that Colleges who work on independent lines are not treating such subjects seriously. I will merely give two illustrations.

(1) No one connected with the Training Colleges requires to be convinced of the utmost importance of healthy habits of life, and of the need of healthy surroundings; but it is unfair to think that hygiene as a practical training was neglected, until that subject was placed in the curriculum. Also it is unsound to lay down that hygiene can only be taught in one way. I quote from a letter to myself from the Board: "Physiology should be made the basis of the instruction in hygiene, and also of the instruction in physical exercises and voice production." There is an assumption here that any College which deals with these subjects on some method, which is not based on physiology, is not taking the matter seriously and is not giving efficient instruction. That there is a physiological explanation for all physical bodily action, is obvious; but it is not so obvious that physiologists have brought their subject to such a degree of certainty as to enable them to give these explanations without any dispute. Further, I very much doubt the scientific value of instruction based on conclusions which students cannot possibly verify for themselves. Is it not equally good "science" to base instruction on hygiene on the common experience of life? *e.g.*, a hardworking student spends the whole of his afternoon in study, and instead of making the progress which he thinks his industry deserves, he finds that he becomes dull, listless, and loses interest in his work; if he changes his habits, and spends more time on healthy exercise, he finds that he makes greater progress in his studies, though he spends less time at his books;



has a physiological explanation. But I very much doubt whether a knowledge of that explanation will have the smallest effect on the change of the man's habits of life. In varying degrees this appears to be true of such subjects as speech training and physical exercises. Anatomy is probably a more exact science than physiology, and to this extent, it is more possible to build up a system of physical exercises on a knowledge of anatomy, than it is to build up hygiene on a knowledge of physiology. But it seems to me to be fair "science" to hold that in all these cases the results must be in the main empirical; a certain habit or exercise is found to produce healthy results; this forms the foundation and starting point of the science. Physiology and anatomy give us hints for the improvement of that which has been already found to be good, but true science must be based on facts which are the product of experience, and theory can only be useful in so far as it is found to agree with experience.

(2) The second point which I must mention, and very briefly, is merely intended to clear up a passage in the prefatory memorandum in regard to physical training in our Colleges. The passage is this: "Investigation has shown that very few men students who leave our Training Colleges each year, have had any serious instruction in the principles on which the 'Official Syllabus of Physical Exercises for use in Public Elementary Schools' is based, and still less any effective practice in carrying out these exercises." It may not have been intended, but the natural deduction is that the subject of physical training has not been treated seriously in the Colleges for men; and the only criterion of our seriousness in the matter is our adoption of the Board's Syllabus of Physical Exercises. As far as I know the Colleges for men, it is absolutely unfair to say that we have neglected the physical training of our students. But in regard to the official syllabus, we need only remember the discussions that have taken place among

non-experts withhold their judgment for a time. We are told in a sentence of the memorandum which I commend to those who are going to take part in our discussion in English Composition. "The Board consequently regard it as one of the chief duties of the Training Colleges to ensure that each student, upon the completion of his or her course, should not merely be qualified to handle a class efficiently in the Board's Syllabus of Physical Exercises, but should also have been imbued with the broad physiological and hygienic principles which underlie it and have at least attained such an attitude of mind towards this important part of the school's work and influence, and such an instinctive appreciation of cause and effect in this sphere, as will induce in him a habit of keeping in view throughout his school work both the ends to be secured and the dangers to be avoided."

But surely we who are not experts may fairly ask, "Where on earth we are to find a statement of the broad principles with which we are to 'imbue' our students?" The task is the more complicated, as the printers inform me that these broad principles seem to be undergoing some process of modification or revision in a new edition which may be expected in some three months time.

But in all honesty, I must say that the attitude of the Colleges is one of profound seriousness in regard to the importance of such matters as hygiene and physical training; we are, however, bound to act upon sound educational principles; we do not like "ready-made" systems handed over to us; these should be the outcome of natural growth, and to be natural the beginnings must be humble, the growth slow; there must be constant testing and investigation, rather than rigid uniformity in all the Colleges; if the Board would frankly tell us that the official Syllabus of Physical Exercises was a first attempt at a vastly difficult subject, obviously full of imperfections, but an honest start; if they were to invite our co-operation in an investigation of the best

all heartily give, far better results would be assured, than are likely to result from the pompous moralisings of the prefatory memorandum.

To pass for a moment from our syllabus to our students, we are just beginning to feel the full effect of the change from the old pupil teacher system; the large proportion of our students have had some Secondary School education; it is early to form conclusions, and I shall merely make a few brief statements in regard to men students, by way of challenge, and as indicating a few points I have under observation.

(1) The character of the students seems to be more buoyant, there is more of the elasticity of youth, and we have fewer weary and serious old gentlemen of nineteen.

(2) But so far there are few signs of better education; there is much less information, a thing to be thankful for, but so far, I cannot trace much of that wider outlook in education which we associate with a Secondary School training. We hope that we find greater potentiality; there are fewer students like those who were in past days crammed into high places of the King's Scholarship List, and were choked in the cramming.

(3) We seem to detect much greater variety in the state of knowledge of the students on admission, some subjects have been studied far more effectually than in former days; while there are strange voids, especially in regard to those subjects which are required in Elementary Schools, *e.g.*, in the case of practical elementary science, either a student has had much wider laboratory experience than formerly, or he is almost without experience of any kind. I understand that very much the same can be said in regard to the previous training of our students in singing and the theory of music.

(4) There is, I think, some sign of a return to the study of the humanities in consequence of the association

of the Board to a more humane treatment of those students whose capacity has led them into a course of study for a University degree.

I must now ask your indulgence for a short time to enable me to offer a few comments on the organisation of our Association, and to make a few suggestions which I hope will be in the direction of improving its usefulness to our members. Every year I am more and more impressed with the need of some Association, such as ours, to unite those who are engaged in the training of teachers. But every year the problem becomes more complex; Colleges of varying types and with different ideals, have increased during the last few years; the type of pupils we have to deal with is becoming more varied, as they are drawn from schools of more varied character. Again, students from the Colleges mainly represented in this Association are allowed, under the terms of their agreement with the Board of Education, to work after leaving College, not only in Elementary Schools, but also in certain Secondary Schools; other Colleges not at present represented in this Association train teachers for Secondary Schools, though these teachers are often also eligible for recognition as certificated teachers in Elementary Schools. While there is an infinite complexity of detail in regard to the training of individuals, needing a careful consideration of their past education and the individual capacity of each student, yet behind all this, the actual problem of training, seems to be one. Take, for example, the work of the teacher in developing in his class a taste for and a love of good literature; the teacher of the upper standards in an Elementary School may only have at his command a limited field of English literature; and may only be able to appeal to a very limited previous knowledge in his class; while the teacher of the upper forms of a good Secondary School may be able to make use of a comparative knowledge of classic and modern foreign literature, and compare the styles of different periods of

intelligent interest in Art, and a certain amount of poetic taste; but the difference of treatment is one of degree, rather than of kind, and the teachers of the class of higher attainment will often gain much from watching the methods of a good Elementary School teacher in leading on the dull wits of his class by simple direct teaching; while the Elementary School teacher has all to gain from contact with those whose work lies with classes, whose grasp is firmer, and outlook broader.

The actual training problem seems to be so far one, that it would be a serious weakness, if those engaged in training could not be united into a single Association; we have all to gain, if the direct problems connected with teaching can be dealt with by those whose actual experience differs as widely as possible. Our Association has defined its membership in words which are broad in conception though rather clumsy in actual expression; we base our object on the ultimate position of our students as teachers, and not in relation to the type of school in which they are to work after the completion of training; our rule was drawn up when it was thought that the Teachers' Register had come to stay, and we defined our membership so as to render eligible all those engaged in the training of teachers, who would be officially recognised under that name. To consider the status of the product of our Colleges, rather than the type of schools supplied, is, I submit, the correct attitude, for an Association interested in the training of teachers.

May I say here that from letters I have received, I know that those who are engaged in the training of teachers, mainly for work in Secondary Schools, are watching our Association with deepest interest. There is at present a separate Association, representing these interests; but I am glad to say that I am authorised by the President of that Association to inform you, that a large majority of its members would welcome the opportunity of uniting with us, so that there should be a single Association only, provided that sufficient

dealing only with this particular type of College. Should this amalgamation be effected, I know that it would secure the support of people of importance who have not, so far, joined either Association.

Now, as far as concerns membership, the matter is easy; if the course of training in a College is such as would have been accepted under the conditions of the late Teachers' Register, for admission to any part of the register, all members of the staff of the College engaged in the training, are eligible for membership; if any members of the existing "Training of Teachers' Association" are not under our rule eligible for membership of our Association, I hope that the President of the former body will confer with me on the matter.

As for the opportunities for separate discussion; this is a subject which must be dealt with in its relation to all elements of our Association. Now that we represent so many different types of Colleges, some sort of subdivision for purposes of discussion seems to be absolutely necessary; but discussion by sections is one thing, public action by section is another; it appears to me that without any change of constitution, we can very usefully form sections of our Association, *e.g.*, Residential Colleges for Women, Residential Colleges for Men, Day Colleges connected with Universities, Day Colleges connected with Local Education Authorities; another section would provide the opportunity looked for by the present "Training of Teachers' Association"; each section could have its own chairman and secretary, and sections could meet either separately or in groups. But to preserve the unity of the Association, it would be absolutely necessary to protect the existing constitutional position of the Committee of the Association; nothing can go forward publicly, as the opinion of the Association, except from this Conference, or from the Committee appointed under our Constitution. Need this hamper the work of the sections? I think not; our Committee is formed of two members from each College;



ally follow with the formation of the corresponding sub-committees of our Committee. Now suppose that a section meets, and adopts certain resolutions, which they desire to go forward with the approval of the Association; these will be reported through the proper sub-committee to the Committee of the Association; if there is no urgency, the report will be made at the next Committee meeting; if there is urgency, the resolution can be circulated to all members of the Committee with a covering letter, saying that unless a special request for a Committee meeting is made in accordance with the constitution, the resolution of the section will be taken as approved, and will be brought up for formal confirmation at the next Committee meeting.

So far I have considered only sub-division by Colleges, but there is a second mode of sub-division which is perhaps of more general interest to the members of the Association, though I shall only be able to refer briefly to it. I mean the sub-division into groups, of the members in different Colleges dealing with the same subjects. One of the perplexities of the position is, that numerically the number of people engaged in the training of teachers is relatively small; while the studies they represent are so numerous that a complete sub-division would require almost as many Boards of Studies as in a University, and almost as many sectional meetings as at a British Association Conference. But something of the kind seems to be absolutely necessary; our Association must lose much of its usefulness if it does not afford opportunity for the teachers of a particular subject in the different Colleges to meet together from time to time, to discuss with one another their difficulties, and to compare their methods. In many Colleges one teacher is entirely responsible for a particular subject, and there is no opportunity for comparing practical experience with any other member of the staff of that College; it

be gained; it is surely one of the functions of this Association to take the initiative in promoting such discussions. Some such plan as this might be suitable; on the afternoon of the day before the Conference, sectional meetings, dealing with special studies, might be held from 2 to 3.30, and from 4 to 5.30; of course, meetings would be going on simultaneously, and members would have to choose the particular one of the most interest to them; short reports of these meetings could be presented at the Conference on the following day, and passed on for the consideration of the Committee.

There is, of course, a further mode of sub-division which I must merely indicate, though its relation to the future development of the Association is extremely important; I mean a sub-division in respect of locality. Again, I think that every encouragement should be offered by the Association to the formation of small circles of teachers of kindred subjects in various suitable centres about the country; the discussions among these small circles could well form the basis for the sectional annual discussions upon different studies, as outlined above; the annual discussion arranged on the day before the Conference on any particular subject for all the members of the Association would usefully focus the discussions which had taken place among the smaller circles, in the course of the year.

The outline given above merely represents my own personal hopes for developing into greater usefulness, the organisation of the Association, which has, in my own opinion, grown more and more useful in the course of years. This private expression of opinion, of course, commits the Association to nothing; but I sincerely hope that before this Conference closes, some instruction will be given to the Committee to consider the best lines on which the Association should develop to meet the growing demands upon it; and one plea I would most earnestly commend to our members; while I have advocated a sub-division into sections of a more or less

of discussion, and suggestion for the guidance of the Association; I would strongly deprecate the formation about the country of separate organisations apart from our Association, dealing with special studies, or special aspects of Training College life; the result of such action would not be that sub-division which is complementary to unity; but it would lead to that separation, which ends in disintegration and confusion.

In conclusion, I have but two remarks to make:

(1) If the objection is raised against my scheme, that it will involve more frequent journeys to the central place of meeting, which so far has been London (though I may again say that we in London are always ready to come to any other place of meeting which is settled by the Association), yet I submit that it is really more economical of time for groups of Colleges to meet as represented by their sub-committees, than to increase the number of Committee meetings demanding the attendance of the representatives of all the Colleges.

(2) My last point is one which was mentioned by our President of last year, and with which I thoroughly concur. We cannot possibly develop the useful functions of this Association without a greater command upon funds. We should have a central office, and a clerk in daily attendance; the growing demands of the Association put far too great a strain upon the good nature of our Secretary; if it were not for the actual labour of our Secretary in carrying our services for which he should have the assistance of a clerk, I do not know what would be the appearance of our annual balance sheet. But in addition to this, some one at the central office in London should be of the utmost use to many Colleges, for the purpose of obtaining information, and it would also facilitate the collecting of information from various Colleges, and the general investigation of many educational matters, which would be of immense use to our members. It is not the time to go into financial details. I would say only this, that it is impossible really to conduct the affairs of the Association efficiently on a half-

crown subscription; but that I believe that if all the members of the staffs of the Colleges felt that they were really helping on the general work of Training Colleges by joining the Association, and that also they were gaining valuable assistance in their own work by being members, they would feel that an annual subscription of 5s. was not too large a demand for the Association to make, though even then the financial difficulty would not be solved.

## SECTIONAL MEETINGS.

## I.—WESTMINSTER TRAINING COLLEGE.

Dr. COWHAM (Westminster) was in the chair, and Mr. MAGSON acted as secretary.

The meeting was well attended. Upwards of seventy were present. The discussion was full and was well sustained. Regret was expressed that more time was not available.

(a) *Practising Schools.*

Miss WALKER (Southlands) read a paper on "*Outside Schools*," and held that:—(1) Special schools should be attached to each College; (2) teachers in these schools, both Head and Assistant, should receive special recognition; (3) "critic teachers" should be selected for employment in the Practice Schools; (4) the scholars in all Practice Schools to have special consideration in their examinations.

Miss S. E. DAVIES (Derby) said that in the provinces the question of picking and choosing scarcely arises. No real difficulty arises with Head Teachers; they have always been most helpful and obliging. The responsibility is not thrown upon them, but every member of the college staff, as well as the two special method mistresses, helps in school practice. Sixty-six students are in charge of ten mistresses, so that thorough supervision can be given. The college tries by means of invitations to special lectures to gain the co-operation of the Head Teachers. When students visit neighbouring towns, at least two head mistresses or assistants from outside schools always accompany the party.

Miss BIRLEY (Goldsmiths) said the Head Teachers look upon it as a privilege to be on the list of Practising Schools. Students and the College staff introduce new and refreshing ideas. Each Practising School is used for three weeks at a time, twice a year. The Head Teachers say they like to have students twice, and they are most generous in the trouble they take with them. There is some difficulty with syllabuses, but in almost all the twenty-five Girls' or Mixed Schools they gladly accept our syllabuses for the three weeks in one or two subjects. We have syllabuses drawn up by specialists, and some of the Head Teachers are very eager to have these syllabuses and to adapt them to their schools. The special recognition of the Practising Schools ought to come from the College. It would be unwise for the recognition to come at present from the County Council, but the Council might be urged to appoint specially selected Head Teachers of the Practising Schools.

Miss BIRCH (Whitelands), Miss YOUNG (Home and Colonial), Miss C. M. AUSTIN (S. Katherine's), Mr. JARVIS (S. Mark's) and others also took part in the discussion.

(b) *Correlation of Mathematics, Etc.*

Dr. PERCY NUNN (London Day Training College) gave an address on the "*Correlation of Mathematics with Science and other School Subjects*."

The opener of the discussion referred to the variety of existing proposals with regard to the correlation of Mathematics with other subjects—such as Science, Geography, Domestic Economy and Manual Training—and explained briefly the principles underlying the methods applied in the Demonstration Schools of the London Day Training College. As far as possible the requirements of some problem drawn from one of the correlated subjects is made the point of departure for the teaching of each new method or notation in arith-



metic, geometry and algebra. Then follows a technical development of the new process more or less on the traditional lines. Finally, opportunities are provided for further application of the extended and perfected process over a wider range of practical problems than those which formed the starting point of its development.

Mr. HARDINGHAM (Culham) thought that in correlating mathematics with other subjects, there was a danger of assimilating that subject to elementary science, and so repeating twice over one kind of mental exercise in place of several, while the time table still professed to include two distinct subjects. He disagreed with the reader of the paper as to the origin of elementary geometry and algebra, in the desire to solve definite practical problems, holding that the Greek geometers and the fifteenth century algebraists worked from intellectual impulses only, and disliked practical questions. In the time table, he said, mathematics stood for the inculcation of two things: (1) accuracy; (2) reasoning; the first by numerical and algebraical simplifications, the latter by problems chiefly geometrical, and he should be sorry to see time taken from these things *without acknowledgment*, and devoted to something else.

Rev. S. BLOFELD (Battersea) said he supposed Dr. Nunn did not wish to banish the disinterested study of mathematics altogether, but only from the schools and that part of the Training College curriculum directly connected with work in the schools. He called attention to the enormous value of the historical method in teaching of natural science, but felt that the same method was by no means so valuable in the teaching of Mathematics. He also called attention incidentally to the possibility of overdoing the making of ingenious practical devices for the teaching of elementary rules, and said that the learning of rules cannot be attained without some real bloodshedding.

(Mr. Nunn) and Dr. NUNN also took

### (c) *Records of Practice.*

Mr. JARVIS (S. Mark's) explained his "*Method of Recording the Results of Student Practice.*"

The question of the form of students' records was raised by Mr. Jarvis in the hope of eliciting from the members present the plans upon which the reports were drawn, and the form in which they were presented to H.M. Inspector, and filed for after use by the college authorities.

There was a general consensus of opinion that the simpler the form the better. Over-elaboration was disapproved of and details of the student's personality should be dealt with in the private criticism and not recorded.

The following took part in the discussion:—Miss HALE (Edge Hill), Miss FILDES (Bishop Stortford), and Mr. PHIPPS (York).

Votes of thanks were unanimously accorded the readers of the papers. The proceedings, which began at 3 p.m., concluded at 5.30.

## II.—WHITELANDS COLLEGE.

### (d) *Music in Training Colleges.*

The CHAIRMAN (Mr. Mills), in opening the discussion, pointed out the evidence that exists of the increasing lack of this necessary preparation, which prevents the student from deriving that benefit from the training college instruction which is so desirable. He considered that no secondary school should be allowed to receive bursars, unless efficient instruction in vocal music is available.

Mr. BARKBY proposed and Miss HOLMAN seconded: "That this sectional meeting of the Training College Association views with concern the increasing number of students, now entering Training Colleges, whose previous training in vocal music has been altogether inadequate or non-existent, and it urges upon the com-



mittee the necessity of bringing this matter before the Board of Education." After a very interesting discussion, this was carried unanimously.

A general conversation ensued when various points were raised, including the desirability of reviving the entrance examination in vocal music, the practice of model lessons in class singing, the award of the distinction mark in music, the theory paper of last July, and the optional course in music.

The following colleges were represented at the meeting:—Avery Hill, Battersea, Bishop Stortford, Brighton, Chelsea, Isleworth, Kennington, Liverpool, Edge Hill, Saffron Walden, Southampton, Stockwell with Homerton, Truro, Whitelands, and Wood Green (Home and Colonial).

## THE PROBLEM OF READING.

By PRINCIPAL BURRELL.  
(Borough Road College, Isleworth.)

I have been asked to speak for ten minutes on the way to improve reading aloud in the Colleges. I suppose we are to assume that the reading aloud is bad. This I beg leave to doubt; but, as there probably are very many bad readers, I will direct my few and laconic remarks at them. Perhaps I may be allowed to explain that on this subject I am a faddist, and that I expect no one to agree with me.

Bad reading comes from bad teaching in early days. If a child, a normal child, were wisely neglected, he would probably grow up to be a good reader. At the age of ten he is, if treated humanely, an admirable exponent of what is right and natural in stress and intonation. Anyone who doubts this may listen to him as he tells his comrades a story or reads a simple fairy tale to a younger audience. It is the teacher, himself ignorant of the principles of good reading, and handing on a false, hard, and stereotyped style, who spoils the child's reading for ever. The majority of teachers go so far as to encourage children to imitate *them*. This is the *ne plus ultra* of bad teaching.

When children grow up, their want of intelligence in matters literary is a fruitful cause of bad reading. They have been *taught* to read; whereas they should have *learnt* to read—a very different thing. Being unintelligent, they cannot attack a new passage and they fall back upon the teacher-tone they know so well.

Ignorance of English literature, of any literature, and a most limited vocabulary are the possessions of most young people. Never having read at all widely, they do not know the meaning of the most ordinary

words or the stories connected with the most famous names. They are quite unfamiliar with the narrative and the majestic music of the Bible; they are equally at sea if questioned about Isaiah, or the Maccabees, or Antigone, or Helen, or King Arthur; and owing to the thoroughly mischievous teaching of the modern psychologist they have either never memorized or have not revised their memory-possession. They do not know what a Common Place Book is. If persuaded to keep one, they make entry after entry (at least the men do) about the beauty of young women.

We find also in the young man an unbounded conceit in regard to his bad voice, his dialect, his bad reading, and his "expression." He will gaily attack Bacon's *Essay of Truth*, which is a hard test piece for a finished reader; and the less he understands it, the more he fills it with "expression." He cannot, will not, see that there is anything the matter with his reading.

Along with this unbounded conceit, goes an equally unbounded shyness. This is true of men and women; they will not speak out, though they can; they will not let themselves go, though they can; they will not allow themselves to show that they feel or would care to interpret any passage, though they can. Along, too, with these our difficulties go what are, to my mind, quite minor troubles—defective articulation, and dialectal peculiarities. These we should never meet at all. They should have been dealt with, if they require any treatment, at school. But it is no uncommon thing to find schools in which children grow up as stammerers and stutterers, and in which R, S, TH sounds are allowed to go on mis-sounded to the end of the chapter. I could give you heart-rending instances of the neglect of speech by parents and teachers; but you know I am telling the truth.

Nevertheless, ladies and gentlemen, I am not going to admit that the reading aloud in our Training Colleges, so far as I know it, is bad. Like the ignorance of and want of interest in, the Bible (with which it forms a strik-

ing parallel), bad reading yields to humane treatment; and I have come across many instances of young men who came up soaked with the teaching of the teacher, but who discovered, to their amazement and to their subsequent delight, that they were good readers after all. Their good reading aloud had been like some fourteenth century church plastered over with stucco: the pillars and the walls had only to be cleaned and the false stuff scraped away, and lo, underneath there were fine stone and tracery and medieval painting and colour and tone and harmony.

If I am to offer suggestions in order that the bad readers may be encouraged to improve, I would first of all plead that the reading and recitation in a College should be entrusted to an enthusiast who happens to understand the subject. It is needless to say that the enthusiasm is of more importance than the understanding: for every student has at the back of him somewhere the dramatic power, and only the enthusiast can tempt this out. The enthusiast, however, must be backed up by the staff and it will not do for one tutor to demand good speaking and reading while another permits the inaudible mutter which often passes muster in the answering of questions.

The next suggestion is that more time must be given to the subject and that classes must be small.

Again, one of the best ways to bring about improvement is to make a definite study of the Art of Story-telling. Every teacher thinks he can tell a story to a class of children; whereas, if the truth be known, not one teacher in a hundred can tell a story so well as the average child can tell it when that child is out of the teacher's ken.

Again, I would plead for a simple stage and for dramatic work in every Training College. I know of nothing which brings more conclusively home to people that they cannot be heard ten feet away, that they are infinitely too rapid, that they invariably neglect the one Golden Rule in reading and speaking, I know of nothing

better for them than being carefully and humanely coached for the playing of short pieces before small audiences.

Again, and here once more I admit the fad, I cannot understand why we should allow the Board of Education to be contented with a recitation power of three hundred lines. For my part, I would like this to be multiplied by one hundred; but I would take as an instalment three thousand lines; and any student should be allowed to submit *inter alia* the lines he had learnt from his infancy upwards. Why not? He will often have to repeat to children not Browning or Milton, but the lines they like and know and understand. But how any body which governs Education can be contented with hearing a sixth part of the students say lines, the learning of which should take about three days, this I cannot understand.

Again, and here I know I shall carry you with me, I should like the authorities in Training Colleges (this Association, if you like) to draw up the English syllabuses for the Board of Education. It is *we* who know what our students can do; it is *we* who know their limitations. Ladies and gentlemen, when I stand before a crowd of men who have never read or who have utterly forgotten *Tom Brown's School Days* and the *Pilgrim's Progress* and *Robinson Crusoe* and Kinglake's *Eothen*, when I stand up and ask them to read at sight Bacon's *Essay on Envy* or Charles Lamb's *Essay on Christ's Hospital*, or that most improper and unsuitable play *Cymbeline*, I confess I feel like a fool, or worse than that, a fraud. It is as though I were asking them to reap the full corn in the ear where there has been no ear, and no blade and no seed. You might as well begin your Greek on Thucydides' speeches.

Lastly, if we are to have universal good reading, we should be allowed to examine candidates in reading aloud when they come up to us. What an outcry there

plough not sixty per cent., but even five per cent. of the students at the Final Certificate Examination, for bad reading and bad recitation.

Talking, and nothing but talking, will not improve matters; and that is why I apologise humbly for taking up even ten minutes of your time. May I add, as a belated remark, but as a remark fit for a lady's postscript, that I believe my strictures, such as they are, apply chiefly to men's Colleges?



## OBSERVATIONS ON THE TEACHING OF READING IN TRAINING COLLEGES.

By PROFESSOR WYLD (University of Liverpool).

This branch of instruction has always appeared to me to be among the most difficult and the most complex of the many subjects which form part of the Curriculum for the Training of Teachers. It is complex, for there are at least three different aspects of the subject to be dealt with; it is difficult, not only by reason of its complexity, but because, from the nature of the case, it involves teaching adults, teaching them to do something which many of them believe they can already do very well, a view with which their teachers frequently do not concur. If this is so, if our aim is to persuade these persons to alter their way of reading aloud and speaking in public, it will mean that we have to eliminate certain old-established habits, and gradually to form new habits.

The Problems which confront the Training College Lecturer, in this task, I take to be of a threefold nature.

- They are :—(1) Problems of Pronunciation.  
(2) Problems of Voice Management.  
(3) Problems of Expression, or the Interpretation of what is read or uttered.

The first of these problems is of a purely phonetic nature, and concerns the actual sounds of speech. The second may be said to be a question of Elocution, and is, or ought to be, the chief concern of the Elocutionist and the Singing Master. The third is partly a question of intelligence and emotion, but has also its external aspect, and this is intimately bound up with the control of the Voice, since in this instance, the Voice is the instrument whereby we express the various shades of thought and feeling contained in the passages we read.

It is, I think, clear that the three groups of problems which I have enumerated, although vitally connected, are not quite distinct. You may have a beautiful and

to make yourself audible and intelligible to more than a dozen people at a time. Or you may have a hasty, nervous twittering mode of utterance which provokes either the mirth, or the impatience of your audience, because they can't follow what you say.

On the other hand, you may have a fine, well-managed voice, and what is called a "good accent," and yet, through some defect of intelligence, some lack of emotional sympathy, you may be unable to enter into, and therefore unable to express, the real meaning of what you read. Again, you may feel quite justly, what is the emotional or intellectual content of your author, but may be unable to convey your feeling to your hearers, because you lack the requisite skill in the management of the voice, because you can produce neither sufficient variety of intonation, nor an adequate range and intensity of volume. It appears, then, that the physical and mechanical side of reading, that is, the use of the organs in forming the sounds of speech, and the control of the voice in making oneself heard, bulks very large in the study which we are considering, and is involved in each of the three divisions of the subject.

The first plea which I venture to make is that the various problems should be dealt with systematically, and that the teacher should not attempt to deal with them all at once.

I propose now to consider briefly the questions of *Pronunciation* and *Voice Management*; the question of *Expression* I leave out of account on the present occasion, because the space allowed me is limited, and because, while its inward and psychological aspect is, as we all admit, a matter of cultivation and intelligence, the external aspect of *Expression* is knit up, as I have said, with the other two points, with which I now proceed to deal.

### PRONUNCIATION.

The difficulties which beset the Training College Lecturer in connection with the pronunciation of the

whether in the case of Colleges in the southern provinces of England, it is the rule that the students possess, from the outset, a pleasing, cultivated and refined pronunciation of English. This may or may not be the case, but I think that those ladies and gentlemen who are connected with Training Colleges in the North and Midlands, will agree with me that, as a rule, the speech of their students requires their attention from the point of view of pronunciation. Speaking from my own somewhat extensive experience, I have no hesitation in saying that a very large proportion of Primary Teachers in Training speak a form of English which is strongly coloured by dialectal influence, and presents many features which, in my opinion, require to be eliminated or modified. I fancy that most people are agreed that for persons holding public positions in England, whether among the Clergy, among Professors, or among Schoolmasters, it is desirable, so far as possible, to secure a form of English speech which is free from strongly-marked provincial and other peculiarities. I assume, then, that in teaching Reading we are confronted with the task of "improving" the pronunciation of our students, and of removing certain defects.

These "defects," by which I mean *divergencies from the best recognised usage*, fall under three heads:—

A. *Personal idiosyncrasies* and defects of utterance.

B. *Provincialisms*, or features peculiar to *Regional Dialects*.

C. *Vulgarisms*, or features peculiar to *Class Dialects*.

*Personal defects of utterance*, such as inability to pronounce the *r*-sound (in *rat*, *right*, *very*, etc.), or the substitution of *f* for *th* (*fink* instead of *think*, etc.), may be due to some physical malformation of the vocal organs, but they are far oftener the result of bad habits which have been allowed to grow up unchecked in childhood. An intelligent person ought to be able to get rid of these careless modes of articulation quite easily, if only they are properly pointed out, their precise nature

*Provincialisms*, or features of *Regional Dialects*, are of a very different character, and require a much more systematic and prolonged treatment. I wish to lay particular stress upon the attitude of the would-be "corrector" of "defects" of this kind. I believe it to be very important, from every point of view, that the teacher should approach this subject in a delicate and scientific manner. The prevailing error is to regard *Regional Dialects* as something vulgar, debased, and contemptible. As a matter of fact, the historical position of these dialects as compared with that of what we call *Polite*, or *Standard English* is simply that, I will not say, of the *Ugly Sisters*, but, as it were, the unsuccessful sisters, who have married badly, and have not got on in the world. *Standard English* is merely one dialect which from various causes, social, political, and geographical, has emerged from the many, rich and varied forms of medieval English, and which has had the good fortune to become the vehicle of literature—since Caxton—as well as the received form of uttered speech, among well-educated, well-bred people. It must never be forgotten that the speaker of a Provincial dialect is *not* trying to speak Standard English, and failing; he is speaking an entirely different and independent form of English, which has a history, and an orderly growth and development, just as much as the most "refined" English spoken by the most cultivated or aristocratic persons.

Our view should be that historically, this or that Provincial Dialect, is not *worse*, or less noble than Standard English, it is simply *different*, and, owing to various circumstances, less suited than the latter for use among wider circles, especially in public life. It is a convention, if you like, that at the present day, among the most cultivated people, a certain dialect of English is spoken, to the exclusion of other types.

*Vulgarisms*, or *Class Dialects*.—Whereas a *Regional Dialect* is, as a rule, independent, in origin and history, from *Standard English*, the kind of features that we

varieties of Standard English itself, but bad varieties, inasmuch as they arise among vulgar and uneducated people. They are the forms of speech, not of a *Region* or *Province*, but of a *Class*. They usually are attempts to speak Standard English, but bad attempts, which the genuine Regional dialects are not. *Vulgarisms* are generally found in the speech of large towns: London, Liverpool, Manchester, Birmingham, all produce peculiarities of pronunciation which are not primarily features of the genuine local dialects of the surrounding areas, though, of course, they may be influenced by these, but are simply and solely offshoots from Standard English, whose development is not associated specially with this or that geographical area, but with certain social divisions of the community.

#### HOW ARE WE TO "CORRECT" PRONUNCIATION?

Having now briefly characterized the main general types of divergence from what we may call "good English pronunciation," we have to consider how we shall best tackle the task of eliminating those features of which we disapprove, and of substituting for them something different. This is really what we undertake, when we try to "correct" or "improve" our pupil's pronunciation. To put this rather more scientifically and exactly, we are trying to substitute one dialect for another. The first principle which I venture to lay down is that the student must make a systematic study, first, of his own, natural, unaltered pronunciation, and secondly, of that pronunciation which he wishes, or which his teachers wish him to acquire.

The next principle is that the teacher must also first know quite definitely what are the sounds he is going to impart, that is, *he* must study *his* own dialect; and secondly, he must study that or those of his pupils.

#### PHONETIC TRAINING.

These principles involve a systematic phonetic instruction first of the pronunciation of the student.

that this investigation may be efficient, an elementary course of *General Phonetics* is highly desirable. This course should deal with the nature and mode of production of speech sounds in general, and should aim at training both the ear to appreciate more or less minute differences of sound, and the vocal organs to reproduce new sounds. A practical phonetic training must aim, above all things, at making the student fully conscious of those familiar positions and movements of the organs of speech, which are habitual and natural to him in his native dialect, but which he has never been taught to observe and realise. Most people do not even know what sounds they use, and, of course, the movement of the tongue and lips, upon which those sounds depend, are entirely remote from and alien to their consciousness. And yet there is not the slightest doubt that the first step in acquiring a new pronunciation is to realise, clearly and accurately, what one's own native sounds actually are; the next is to realise how and in what way the new sounds differ from them. But it is not enough to do this by ear. For it is quite possible to be able to hear that two sounds are different, and yet to be quite unable to utter that which is new and strange. It is fundamentally important that teachers should know that the vast majority of their pupils cannot learn a new pronunciation *by imitation alone*. The haphazard "correction" of isolated "mistakes" of pronunciation, as they occur, which is, I believe, a common practice in the old-fashioned *Reading Lesson*, is of little, if any, permanent value. Therefore, the first thing to do is to get the student to make a complete list of all his sounds, especially his vowel sounds, for in the vowels occur the greatest number of varieties. Then each vowel must be carefully analysed and described. For an explanation of what is meant by the "analysis" of a sound, I must refer the unphonetic reader to Dr. Sweet's *Primer of Spoken English*, his *Elements of Phonetics*, or his *Primer of Phonetics*, or to those chap-



Then the same processes of enumeration and analysis must be applied to the sounds of standard English, and the sounds of the latter should be carefully contrasted with those which exist in the Student's own speech. This is one side of the study of Pronunciation, the study of the *actual sounds in use*. The other, and no less important side is that of the *Distribution of Sounds*, that is, the study of the "right" usage of sounds. For instance, a Yorkshireman uses the sound in *put* in a much larger number of words than the speaker of Standard English. The Yorkshireman uses this sound, not only in some of the words in which it occurs in Standard English, but also in words where the latter employs the sound in *but*. Again, in some of the words which in Standard English have the sound in *put*, the Yorkshireman uses the sound which is used in Standard English in *spoon*; e.g., in such words as *hook*, *book*, *rook*, *cook*, and many others which end in *k*. Now supposing you have to deal with a Yorkshire student, and supposing you have taught him the (to him) new sound of English *but*. He has still to learn in which words this sound is used. He must know that we use it in, *blood*, *hut*, *rush*, *run*, *bud*, *cull*, *hush*, etc., etc., but that in such words as, *push*, *bull*, *put*, *book*, *foot*, *good*, *hood*, and many others we do not use it; and again that the sound which he uses in *book*, etc., we use in *spoon*, *brood*, *food*, *fool*, *school*, etc. This is what I mean by the *distribution* of sounds. The student must be taught to observe these things for himself, and compile lists, based on his observations, showing the distribution in Standard English of the various sounds which offer difficulty. These lists should be looked over and discussed from time to time by the teacher. Of course, the nucleus of these lists must be given to the student in the first instance by the teacher, and the student's task is to amplify and complete them.

The advantage of such a method as that which I have ventured to outline is that it is exhaustive and sys-

but every sound is thoroughly dealt with in turn, both as regards its precise nature and also as regards the words in which it is used.

#### USE OF A PHONETIC NOTATION.

I have not the faintest hesitation in saying that the use of a simple phonetic notation is essential in the teaching of reading aloud. From the point of view of the distribution of sounds, it is obviously of the greatest help to have the precise sounds indicated in each word. Therefore I advocate reading from phonetic texts. Again, the practice of using phonetic script on the part of the student, is a great stimulus to habits of accurate observation. I therefore further advocate the practice (a) of recording the individual's own pronunciation by the constant transliteration of passages to represent the pronunciation of the writer, and (b) of taking down in phonetic script dictated passages, in which the student puts down what he *hears*, no matter how much it differs from his own usage. This latter will strengthen the knowledge of the sounds of Standard English, and of their distribution. It is very useful to introduce variation by asking different students to dictate passages, and inviting the class to note the varieties in the sounds, and in their distribution.

Phonetic notation is a great bugbear to many teachers who have never tried it, but I can assure them from long experience that the difficulty is imaginary, and that even quite stupid students, unless they are also very idle, learn to use a phonetic alphabet with very fair accuracy in a few weeks.

#### WHAT TO AIM AT IN PRONUNCIATION.

Two questions arise under this heading. The first is what kind of pronunciation to take as a standard, the other is how far we can go in insisting on the alteration of a student's pronunciation. As regards the first point, I have already defined *Standard English* repeatedly in

that subject. It remains, however, to say a word or two on the type of Standard English which should be expected from students in reading aloud. Personally, I hold that the greatest and most offensive sin in the public speaker or reader is pedantry or preciousness in any shape or form. These habits of mind are shown most clearly, in pronunciation, in undue preciseness in uttering unstressed syllables. It would be a lengthy business to enter into details on this head, but I may briefly sum up my own feeling by saying that the best public speakers approximate their pronunciation in public utterance to that of well-bred, unstudied, easy, colloquial pronunciation. Above all, do not commit the preposterous and egregious absurdity of saying that "*every letter must be pronounced.*" Anyone with a slight knowledge of the history of English and of English Spelling could soon show what disaster this piece of ignorant advice will land people in. The best advice to give is, observe how well-bred speakers pronounce who are devoid of conceit, priggishness, self-consciousness and any theories of what is right or wrong, and take such persons as models.

I pass now to the question of *what to correct*. This must very largely be determined by the aptitude of the student. As a rule, if a student has a very marked Dialectal pronunciation—if he is, in fact, a native dialect speaker, it will be useless to attempt to alter his whole mode of speech. When you have the statistics of his pronunciation, in the careful analysis of each sound suggested above, you will have a complete diagnosis of his case. The best advice I can give is, when you know the facts, concentrate upon the most distinctive *Provincialisms* and *Vulgarisms*; insist upon their elimination and upon the substitution of the Standard forms in the Reading Lesson. When the student knows exactly what are the features of his pronunciation which he must abandon, and with equal exactness what he is to substitute for them, he must practise the new sounds until he can use them easily and natur-

printed phonetic texts and from the passages which his teacher dictates. I think that anything in a pronunciation which is so great a divergence from the polite usage as to be at once noticeable, should be got rid of. These features will be different, to some extent, in each student—hence the necessity, already alluded to, for the teacher to know exactly what are the main characteristics of the speech of *each* of his pupils.

#### VOICE MANAGEMENT.

I have left myself but very little space for this important side of Reading aloud, or public speaking. The proper management of the speaking voice is clearly the business of the teacher of Elocution. Unfortunately these Artists are usually more concerned with imparting stilted and artificial *pronunciation* than with the main side of their craft. From my experience of the doctrines of professional Elocutionists regarding the pronunciation of English, I am very little inclined to take them seriously. These theories are generally based upon an antiquated tradition, upon a false conception of the nature of the problems of pronunciation, and complete ignorance of the development of the language. We don't want theories of how people *ought* to pronounce, but definite statements, based upon accurate and unprejudiced observation, as to how, as a matter of fact, good, well-bred, cultivated speakers actually do pronounce.

The chief elements of a "good delivery" are audibility and clearness of utterance. The former is largely a matter of *Resonance*, the latter of well-trained vocal organs, skilful and accurate in articulation. These qualities may be acquired by honest, well-directed practise of phonetic exercises. Resonance depends upon a good vibration of the vocal chords, and the proper diversion of the air-stream, so that it impinges upon the hard palate, instead of upon the soft palate which muffles and obscures the sound. At present, the power of obtaining a good, vibrant note, whether spoken or sung, seems

of the individual. The test of a good voice, or rather of a well-managed voice, is that the speaker can fill a hall or room of ordinary size without any strain or effort.

Bad readers and speakers often "drop the voice" at the end of a sentence. This arises from the fact that there is a tendency to reduce the resonance as the tone is lowered, and the end of a sentence being uttered, as a rule, with lower tone than the beginning, by the time the lowest tone is reached, the resonance has been reduced to nothing. A little practice in gradually lowering the tone, without diminishing the resonance, will soon cure this defect.

A frightfully irritating habit is that of filling up pauses with the meaningless "er, er." This habit can easily be got rid of if the student is taught to unvoice, that is, to cease the vibration of the vocal chords, in pauses. This simply produces complete silence during the pause.

Another very important element in good reading and speaking is the *speed* with which the sentences are uttered. The general tendency is to read and speak far too quickly. Fairly slow utterance is far more impressive, and far pleasanter to listen to, than one which is over-rapid. Of course, the speed will naturally vary, within limits, according to the style and matter of that which is read. This is a matter for good taste to decide, and falls under the head of *expression*.

A common mistake, in those who are inexperienced in public speaking or reading, is to pitch the voice too high, under the erroneous impression that a voice so pitched carries farther than one pitched lower. The truth is, of course, that every speaker is at his best when speaking in what is, for him, a natural key, and he will be most effective if he chooses as the average note on which to speak, a middle note, from which he can either rise, or fall in tone without any effort.

It will, I think, be found useful and efficacious to tackle these, and other defects in voice management

illustrated by specific examples, in each case, of the particular fault, and the method of its improvement. On the whole, I am inclined to advocate that short passages of various kinds of prose and verse should be taken as models and learnt by heart, in such a way that every detail of pronunciation, emphasis, and intonation is reproduced by the student, just as it is uttered by the teacher. This means, of course, that each of such passages must be repeated again and again, bit by bit, until the whole is familiar. But a detailed analysis of each of such passages must precede the learning of it as a whole. The sounds can be represented in phonetic notation, and every detail should be commented on and explained. The emphasis and variations of intonation can also be marked in the notation, as a means of refreshing the memory on these points in private study, when the living voice of the teacher is no longer there as a guide.

I know that some teachers deprecate the giving of such models as likely to produce an unreal and mechanical mode of reading. But I submit that if a few of such models are thoroughly assimilated by the student they will serve as a basis for everything he reads, and gradually, with the increase of experience, and the growth of his own culture, he will be able to apply what he has learnt, not as something to be slavishly followed, but as a model and basis upon which he may build his own interpretation of literary passages.

I have only been able to indicate a few points which require attention in training the speaking voice. As regards the problems of pronunciation, in venturing to offer for your consideration the outlines of a rather thorough and, as you will perhaps think, an over-elaborate scheme, I am fully conscious that details must be left to the experience and the personal enterprise of the individual teacher. On the other hand, I believe that the main general features of the method which is here suggested will be found, if given a fair trial, to be sound.



method which may be adopted, Reading cannot be profitably taught unless the various classes of problems involved are recognised, and unless each be dealt with separately and systematically.

#### DISCUSSION.

Rev. A. B. BATER (Derby) was of opinion that Principal Burrell's statement as to the origin of bad reading required some modification. It was not correct to say that "bad reading comes from bad teaching in early days," but rather that much bad reading was caused in that way. Again, he could not agree with Principal Burrell's statement that "if a child, a normal child, were wisely neglected, he would probably grow up to be a good reader." Good reading was no more the product of chance for the great majority of people than was good singing or good painting. He deprecated Principal Burrell's idea that good reading was not to be taught, and said that in his opinion much could be done in Training Colleges to inspire the students with a desire to read and recite in the best way, and to give them such sound instruction in this connection that when they went out into the elementary schools of the country they would carry on the good work.

The great need in the teaching of recitation and reading was the cultivation of intelligent thought and effort on the part of the pupil. Too much was done in the way of "*unintelligent*" imitation. From the first the pupil should be made to think for himself. A few lines of recitation should give as much scope for thought as a problem of mathematics. Every change in pitch, every pause, each alteration in force or manner should be intelligently accounted for by the pupil. In this way only could the intelligence of the pupil be respected and fair play given to his desire for individuality and originality. The difficulty felt by many readers in attacking some new or strange paragraph was due to their lack of initiative consequent upon "*unintelligent*"

There was urgent need of an expert examiner in the subjects of reading and recitation; not an expert in phonetics alone, but one who was distinguished in every branch of the subject, "healthy respiration, clear utterance, pure musical pronunciation," and such powers of expression as would bring home to the listener the true meaning of the piece read or recited.

At present the work done in colleges in these subjects was tested by those who could not see below the surface, who were unable to appreciate the infinity of pains, which underlay the work presented, or to say how far what was done was original or merely imitative.

There was no subject in the syllabus at the present time more valuable than that of reading, recitation, and the use of the speaking voice, nor was there any subject in which teachers required more help and encouragement.

Miss FOGERTY (Lecturer in Speech Training, University of London) said the special point she wished to emphasize in relation to the teaching of Reading was the necessity for a sufficiently elementary beginning. Two different objects have to be kept in view: (a) the training of an instrument; (b) the manner in which that instrument is to be used. It is in connection with the first that the question of dialect comes in. Many forms of word mispronunciation are fatal to the production of pure vocal tone. These must be corrected. What further corrections of pronunciation are attempted may be a matter of opinion, but the teacher, as the best speaker the majority of his pupils will ever hear, must avoid excess of personal peculiarities, and must maintain a standard of spoken English.

The greater part of speech training is physical; once physical control and pure audible speech have been obtained, the use made of them in speaking may largely be left to the taste of the individual. The chief obstacle to good reading will then be found to be paucity of vocabulary. Can anyone suggest a really

## THE CULTIVATION OF STYLE IN ENGLISH COMPOSITION.

By KATHERINE T. STEPHENSON (St. Gabriel's College).

Resign the rhapsody, the dream,  
To men of larger reach,  
Be ours the quest of a plain theme,  
The piety of speech.

R. L. STEVENSON.

Students in Elementary Training Colleges are at least eighteen years old when they enter, and have usually spent a considerable portion of their time before entrance in studying, and another considerable portion in teaching, in this latter occupation being forced to practise themselves in oral expression. We might reasonably expect then, that such persons would, upon entering College, show themselves able to write upon some ordinary subject of fact or opinion, in prose which, though not absolutely deserving the epithets lucid, coherent, and harmonious, would yet show a striving after lucidity and coherence, and some appreciation of the sound and value of words. But we do not find these characteristics in the work of our students when they come up. Very few can express themselves well on paper. Some can scarcely express themselves at all. The efforts of these last can only be called inarticulate. That is a somewhat severe criticism, but I do not suppose that this audience will dispute it.

What are the causes of this lamentable state of things?

There are, I think, three principal ones. We find when students come up that, (1) their knowledge is very scanty, (2) they are unable to think coherently about any subject of which they perhaps have some knowledge, for the length of time necessary for the writing of an essay, (3) such knowledge or opinions as they have they cannot express.

Now we should look I think, chiefly to the mental training given by the whole course of study to remedy the defects indicated under (1) and (2) while "Composition" in particular should be concerned with (3).

Considering (1), (2), and (3), then, it seems clear that the work in Composition set to students in their first year should not consist of the writing of essays on given subjects, but of varied exercises, all tending to develop the power of expression. Let the material be supplied to them in various forms; for not only are various exercises necessary for this purpose, but variety will also help to keep interest alive in what must be exceptionally dreary work to the uninterested.

No doubt when any subject is studied the greater part of the work *ought* to be done by the student. In this case it *must* be. Almost anyone can be *forced* into the position of being able to solve quadratic equations, or of knowing the contents of a "set book," but no one can be forced to make any real progress in the art of literary expression who does not genuinely and continuously want to. One aim of the lecturer therefore must be to create a continual and lively interest in the matter.

I suggest the following general arrangements for the teaching of Composition:—

- i. In the first year the classes should be small. If possible only 20 in a class; never more than 25.  
In the second year there might be 40 in a class.
- ii. The classification should be by merit.
- iii. A considerable number of the staff should take part in the teaching of Composition.
- iv. Every exercise set should be corrected by the lecturer.
- v. The exercises should be done in books, so that they can be preserved for reference.
- vi. The lecturer's "corrections" should be critical or interrogative, but not emendatory.
- vii. A "corrected" exercise should be amended by the student before the next is attempted, and these amendments should be inspected by the lecturer.

## GENERAL SCHEME OF WORK.

In the first year: Very little essay writing. Miscellaneous exercises.

In the second year: Chiefly essay writing. The subjects sometimes given out beforehand for reading and reflection, sometimes done on the spur of the moment, as at the certificate examination.

It remains to offer a few very obvious suggestions as to the miscellaneous exercises which can be set. I have preceded these by a list of the faults I have most frequently observed when reading over Composition exercises, with specimens of work which has actually come under my notice, as illustrations of some of these faults.

- 1.—Elementary mistakes in grammar, spelling and punctuation.
- 2.—Faults in the construction of a sentence.
  - A. Overcrowding.
  - B. The coupling of ill-matched words, particularly nouns and verbs.
  - C. The use of trivial or weak expressions, words ugly in themselves or ugly because ill-assorted with others, hackneyed figures of speech, colloquialisms.
  - D. Want of balance and rhythm.
- 3.—Faults in the construction of a paragraph.
  - A. Lack of a central idea.
  - B. Lack of continuity.
  - C. Irrelevance.
  - D. Repetition.
  - E. Omission.
- 4.—Faults in the composition of an essay.
  - A. Lack of the sense of proportion.
  - B. Lack of continuity.
  - C. Misunderstanding of the subject.
  - D. Narrowness of view.
  - E. Irrelevance, repetition, omission, diffuse-

## SPECIMENS.

It is hard to decide whether the notable characters of the 16th Century had power to control their own affairs so as to make them fortunate, or whether the good results of their domestic and political matters were only from chance.

It is very difficult to say whether the characters of the 16th Century controlled the affairs of the nation, or whether the affairs themselves decided how they should act.

Keats has a good command of language and he uses fitting words which have a sound of their own, and convey a vivid picture to our minds.

Most sonnets connect the whole force of the sonnet into the last two lines.

A person who possessed an exquisite confection in perfect taste which was intended for evening wear, would be displaying a parvenu love of wealth if she wore it on an occasion which called for less elaborate apparel.

Ulysses' mind was filled with progressive desire.

On the outer band there is a pattern occurring five times, and is made up of hockey sticks and balls, which alone impresses the onlooker what kind of a shield is before them.

The human mind is justified in believing in circumstances which have been written by historians whose several accounts support each other.

The nation could not take an example of good morality from their king for many of his actions were far from being those which the leader of a nation should do.

What were the objects of Henry with regard to his sudden change towards the Clergy?

## EXERCISES.

- 1.—A passage of prose or poetry with single words omitted here and there to be considered and the missing words suggested (for 2, B and C).
- 2.—Given a paragraph, supply a short heading to it (cf. the headings in Gibbon and other historians).



- 3.—Given a passage of prose, or short poem. Annotate it (for 4, A; 4, E).
- 4.—Set an examination paper on a given chapter of history, etc.
- 5.—Rewrite a passage of slightly antiquated English in modern style (2, C).
- 6.—Describe some character or object, without using adjectives.
- 7.—Take sentences from some standard author, *e.g.*, Macaulay. Consider their balance and rhythm. Compose similar sentences upon other subjects.
- 8.—Expand an outlined story (see Hartog on English Composition).
- 9.—Consider a passage of prose of some (but not great) difficulty. Write a connected explanation of it.
- 10.—Show the sequence of ideas in an argumentative passage.
- 11.—Consider the use of quotations, illustrations, proper names and so on.

Introduce given quotations, etc., into a paragraph.

The vivacious lecturer will find no difficulty in improving and adding to these suggestions. Some cheering results have been obtained by work done on these lines. But literary taste and facility of expression are plants of slow growth in any soil. In two years they certainly will not reach maturity. We must not expect it, nor must we be unreasonably disappointed when a second year student writes sedately such a sentence as—"Milton used sonnets with a good amount of success."

These things will happen. The motto for both lecturer and student must be the inspiriting (and only) piece of advice which a certain French artist used to give to his pupils: "Continuez, Messieurs et Mesdames, continuez toujours." And if we can kindle and keep alive in our students an interest in the matter as eager as our own, we too may claim (with Milton) to have achieved "a good amount of success."

## THE DEVELOPMENT OF THE POWER OF LITERARY EXPRESSION.

By A. W. REED (St. Mark's College).

Frankly, I do not think that we ought to look for any striking measure of success in this matter in the men's colleges.

The ordinary critic is quite right when he tells you that the writing of the average student is discreditable to a man of his age and of his vocation. We find grammatical blunders, elementary faults of syntax, neglect of punctuation, misuse of capitals, and unpardonable mis-spellings. We find that words are misunderstood, that phrases are ambiguous in meaning, that the vocabulary is very limited, that the appropriateness of adjectives is not considered, and that the man writes with much glibness, notwithstanding. We find no sincerity in the writing; it is merely conventional; the man is desperately willing to say anything that he conceives to have some bearing on the matter in hand.

We need not enlarge on these facts; the critic is right; they are discreditable. But, I would ask, how could it be otherwise? We have pilloried the average student; let us see what manner of man he is; and, as it is his writing that is under consideration, let us see if we have any justification for expecting him to be able to write.

Most people who take a pleasure in writing or are more than ordinarily well read, can look back to those early years when some older friend sowed in them the seed of an enthusiasm for good books. It has not been so with him. The standard of taste in books is low in his home circle. His critic may be a man of a classical education, brought up to weigh, in his proses, verses and translations, the appropriateness of words and the balance of phrases. He may be a man of liberal education, well schooled in the life and language of other countries. Those advantages, so potent in producing

not been enjoyed by our student. If we may make an adaptation from Bacon, "He hath read but little, and he hath need of much cunning to seem to know that he doth not." He is neither a "full man," nor a "ready man," nor an "exact man."

His studies have lain beyond the range of his interests, especially his studies in history and literature. Occasionally he has been called upon to undergo the nervous strain of an examination, and then, and, usually, only then, has he been invited to commit his thoughts to writing. If his interest in any of his subjects has been truly aroused, the atmosphere of an examination is hostile to any true reflection of that interest. We may, indeed, assume that he has never written with sincerity, and, probably, never with pleasure. Rather, he has come to look upon writing as an unnatural operation in which by great good luck he may say what is expected of him. A young man writing under compulsion from a very meagre store of conventional facts, will, of course, treat you to much that is irrelevant and much that is banal. He will, however, sin in the well known company of the after dinner speaker or the bachelor who responds for the ladies. They are not themselves for the moment, and they take refuge in irrelevance and conventional banalities.

In all this, however, we find that grim, conscientious effort that marks his early written work in college. Is it to be wondered at that this effort soon fails under the new and congenial atmosphere of corporate life? He becomes careless, his carelessness becomes a habit, and in time we turn upon him and point out that his English is discreditable. Such is the average student; and I now ask you to consider the original proposition: "How can we develop in him the power of literary expression?"

Can we from the first awaken and maintain in him a spontaneous interest in his English subjects? Without it, little eventual progress is possible. But to suc-

and conventionality are his weaknesses. We must be strangely simple and patient in our lectures. We must teach him to read, read aloud to him, move him to a sense of rhythm, to the secret significance that a well used word will yield. There must be an end to all that is dull and academic in our lectures; we must banish, too, the brilliant effort that excites as much bewilderment as admiration. We must strive to get into close touch with him, to know him in his games, his interests, his prejudices, and his worries; and if any man obdurately evades us, he is often assailable when he is ill. In this atmosphere, teaching becomes more sincere, more direct; and cant, banality and irrelevance are out of their element.

There remains, however, the practical side of the matter. I venture to lay it down as a working rule that in almost every subject there should be one hour's writing for every two, or at most, three lectures. In this written work our first and constant aim must be to secure correctness and precision. We must train the men to liberate themselves from their puerile blunders in grammar, syntax, spelling, and punctuation. This involves hours of serious marking, but the student responds to strict marking. The scope for this practice of correctness and precision is indeed great. Imagine the satisfaction of a mathematical lecturer who can depend on a *logical* statement of a geometrical exercise from the majority of his class, and imagine, too, the value added, in consequence, to the study of mathematics. I repeat that I am convinced that we do not get enough writing in any subject from our men.

The standard of correctness in all written work must be a high one; no lower, in fact, than that required by, let us say, one of the proof readers of Mr. Hart of the Oxford University Press.\*

We must give ample time for all written work. If more than two subjects in English or History are set in an hour the probability is that the men will sink

back into their worst faults. And not only must we give ample time but we must see to it that the questions are worth the answering and marking. If we have frequent papers, the questions naturally cease to be inquisitorial. The periodical "test" disappears, with its ingenious devices ensuring that no goat slips through amongst the sheep. Rather, our ingenuity will be exercised in making questions that are stimulating and suggestive, that provoke interest and originality, and are, afterwards, a source of useful discussion.

I am a wholehearted believer in the paraphrase as an exercise in expression, if the original passage be of adequate difficulty. I find that the expectation of a weekly exercise of this kind sends men to their dictionaries in a most salutary way. Those students who take another language should have much practice in written translation.

In this way, by cultivating enthusiasm and by securing precision, we may achieve, at least, a measure of success. We shall arrive at simplicity, orderliness, and consecutiveness. We shall see in the writing a reflection of the interest we have awakened, and we shall succeed in abolishing cant. I am afraid, however, that we shall still be far from anything worthy of the name "literary expression." No, there are some things that are too hard for us. Many of our ideals are unattainable in the two short years of College life. We can only surmount some of the obstacles that stand in the way of our achievement; yet, in the breaking of the mist, we may show our men from the vantage ground we have gained that there is a pleasant land beyond, into which they may go themselves. If we have that sounder faith that sees other agencies than our own working towards the end we seek, we shall not be surprised if our success is greater than seemed possible. Ten years after he has left College, many a student who used to lag behind, will discover himself to you a man of no mean culture and of much natural sensibility.

## DISCUSSION.

Rev. S. BLOFELD (Battersea) welcomed such a thoughtful contribution to a subject the teaching of which is at present in so nebulous a state. He felt that there was a danger of overloading lectures in connection with this literary work. The aim should be towards the covering of small ground in lectures and the doing of that as thoroughly as possible. Everything possible should be done in the way of careful questions, which make for research work on the part of the students. Strict and critical marking of answers undoubtedly added to the interest which could be aroused in students. With regard to paraphrase, the speaker felt very strongly that this work should only be asked for in connection with passages of real difficulty. The speaker commended occasional verse composition as a practical method of familiarising the student with diction.

Miss Fox (Southampton R.C.) subscribed to the recommendation to reduce the number of essays in the first year, seeing that their previous reading had been outside their college studies and hence they were tempted by lack of knowledge into insincere expressions of opinion. She commended the careful study of selected portions of the great writers, with an attempt to place the students in the attitude of mind the found expression in the form of the great writers. For instance, a description of the Alps would precede the reading of the "Hymn in the Vale of Chamounix." This description might or might not be followed by a composition. Almost always, with students, an outline is preferred. We do not realise the power generated by the preparation of an outline. The reading of the passage follows the outlined or completed composition. To inexperienced teachers the guidance furnished by the necessity of working towards the passage to be read is valuable; even experienced teachers are helped by it. To the pupils the plan is at least as valuable. They are possessed—or should be—by the thought



that inspired the masterpiece; and the result of hearing its perfect expression is, to some extent, that produced on those fortunate children whose earliest attempts are moulded by the perfect English spoken by those around them. A further claim for the plan is that it increases the amount of reading done and extends its range, introducing the students to many writers in many moods. As an approach to literature it has other values.

Miss RICHARDS (Armstrong College, Newcastle-on-Tyne) sends the following notes with respect to Miss Stephenson's paper:—

The paper on the cultivation of style contains a very exhaustive summary of all the possible delinquencies of the average student, together with detailed suggestions as to a curative course to meet the varying needs. May it be permitted to raise questions upon both these points?

(i.) Is the average student, who by a process of elimination reaches the training college, really so ill-equipped as he is commonly said to be? Is it not possible that his may be but an apparent failure?

(ii.) Is a detailed course in English Composition, such as that suggested, what the student really needs to teach him the art of expression?

It is a wise maxim that recommends the would-be author to sit down to *write* what he has *thought*, and not to *think* what he shall *write*. Is it not conceivable that here may be the difficulty of the student, that he is so often required to produce in perfect form an essay on a subject of which he knows but little, that he is, in fact, so frequently asked to make bricks without straw? Ask him to write upon a matter in which he is interested and of which he, therefore, has some knowledge and he will produce a quite creditable essay. This was extremely well illustrated recently in a number of long and detailed accounts written by students on the subject of their annual visit to country schools. In the majority of cases descriptions were good, some were

remarkably good, and I believe this was due to the fact that the writers were asked to describe matters well within their knowledge.

Of technical errors, such as punctuation, use of capitals and others which have been enumerated, there is always a certain percentage among a large number of essays, but these are such as should be easily corrected incidentally in the varied written work that is required of the student. It is surely the old question of *Form versus Matter*, and failure in the art of expression is generally attributable to the lack of material, and not so much to the lack of the power to set forth material. Hence it may perhaps be justifiable to claim that the all too frequent failure is to a considerable extent but an apparent failure. Necessarily, one excepts extreme cases.

Granting, however, that the average student may fail in this respect, the question of the remedy naturally presents itself, and the one suggested is a very systematic course in English Composition. I would submit that such a course is for two reasons undesirable, although not for a moment would I question that it may be productive of the most valuable results.

(i.) It is most essential that the training colleges should demand a high standard of attainment from those who claim admission. The work suggested in the proposed course is what might well be done by any good secondary school, and any assumption that the secondary school does not intend to fulfil what is required of it, is detrimental to the true interests of both school and college. The increased possibilities of secondary education for the intending elementary teacher should therefore make a systematic course in English composition unnecessary in a training college.

(ii.) Next I would submit that the curriculum of the training college is too full to permit of its doing the work of a secondary school, even if it were desirable.

Surely the ideals of a college should be wider; its aims should be to give to its students something of academic culture, limited, of course, because in their case academic work and professional training must be carried on simultaneously, but, nevertheless, wide enough to open to its alumni the possibilities of a more liberal knowledge than the pupil teacher, with the all too frequent self-complacency and self-satisfaction of the unawakened mind, can ever reach.

The fulfilment of such an aim demands time, time for a wider reading, for a more intimate acquaintance with the masterpieces of literature, time to atone for that deficiency in knowledge which makes the art of expression so difficult. The old Platonic theory of unconscious imitation is as true to-day as it was when Plato urged that men should set good models before their pupils that they might "dwell in a land of health amid fair sights and sounds, and receive the good in everything, and beauty, the effluence of fair works, might flow into the ear and eye like a health-giving breeze from a purer region."

Dr. THOMSON (Newcastle-on-Tyne) thinks the question of style has best been set forth by Montaigne: "So that our disciple be well and sufficiently stored with matter; words will follow apace, and if they will not follow gently, he shall hale them as perforce. I hear some excuse themselves that they cannot express their meaning, and make a semblance that their heads are so full stuffed with many goodly things, but for want of eloquence they can neither utter nor make show of them. It is a mere foppery. And well you know what, in my seeming, the cause is? They are shadows and chimeras, proceeding of some formless conceptions, which they cannot distinguish or resolve within, and by consequence are not able to produce them inasmuch as they understand not themselves. And if you but mark their earnestness, and how they stammer and labour at the point of their delivery, you would deem

fore nothing near down-lying; and they do but lick that imperfect and shapeless lump of matter. As for me I am of opinion, and Socrates would have it so, that he who hath a clear and lively imagination in his mind may easily produce and utter the same, although it be in Bergamask or Welsh, and if he be dumb, by signs and tokens, *Verbaque praevisam rem non invita sequentur*—

When matters we foreknow,  
Words voluntary flow.

"As one said, as poetically in his prose, *cum res animum occupavere, verba ambiunt*: 'When matter hath possessed their minds, they hunt after words'; and another, *Ipsae res verba rapiunt*: 'Things themselves will catch and carry words.' He knows neither ablative, conjunctive, substantive, nor grammar, no more doth his lackey, nor any oyster-wife about the streets, and yet if you have a mind to he will entertain you your fill, and peradventure stumble as little and as seldom against the rules of his tongue as the best master of arts in France.

\* \* \* \*

"It is a natural, simple, and unaffected speech that I love, so written as it is spoken, and such upon the paper as it is in the mouth, a pithy, sinewy, full, strong, compendious, and material speech, not so delicate and affected as vehement and piercing. *Haec demum sapient dictio quae feriet*—

In fine, that word is wisely fit,  
Which strikes the fence, the mark doth hit.

Rather difficult than tedious, void of affection, free, loose and bold, that every member of it seems to make a body; not pedantical, nor friar-like, nor lawyer-like, but rather down-right, soldier-like."—*Of the Institution and Education of Children*, Florio's translation.

## THE REGISTRATION COUNCIL.

By REV. E. HAMMONDS (Chichester).

I was induced to take up this question—at least to open it up for discussion—because, in the copy of correspondence recently published by the Board of Education on a scheme for a new Teachers' Registration Council, proposed at a meeting of the representatives of certain educational associations held last February, I noticed that the Training College Association was neither represented at the meeting, nor was it suggested that the Training Colleges should be in any way represented on the proposed Registration Council. This seemed to me so grave an omission that I wrote to the President-Elect of our Association (now President) to ask if anything could be done.

I do not think it requires many words of mine to commend to you the two resolutions that stand in my name, because I can hardly conceive any serious difference of opinion on the question as to whether the Colleges should be represented or not. If the new system of registration is to be inclusive and not exclusive in its character; if it is to include, as I think it should, all branches of the teaching profession, then it is clear that the Training Colleges, as such, cannot be left out in the cold.

I shall not attempt to discuss the various problems connected with registration, but I will assume that having got rid of the invidious distinctions set up in the last ill-fated Register, the general desire is that we shall obtain a Register pretty much on the lines of the clerical directories, consisting mainly of an alphabetical list of all recognised members of the profession, setting forth in each case the qualifications and experience which have entitled them to a place on the Register. What the exact qualifications should be, is, of course, a matter to be decided by the Registration Council about to be formed.

Having premised so much it is only necessary to set forth some of the reasons for the resolutions I am about to propose.

In the first place, it may be well to notice the action which has so far been taken, and which has ended in an apparent deadlock. I am not speaking from full information, but I notice in the Board's pamphlet of correspondence, to which I have already referred, that in the conference held last February, twelve educational societies or associations were represented by delegates. See Appendix B, p. 21.

The scheme for a Registration Council proposed by this Committee of delegates, and submitted to the Board of Education in March, also given on p. 21.

After this draft scheme had been submitted to the Board of Education a large number of other educational societies applied to the committee claiming to be represented on the Registration Council. The names of these societies and their various claims to be represented are given in the correspondence. No mention, however, is made of the Training College Association.

The next point is that the sub-committee refused to entertain any of these additional applications, and wrote to the Board that they adhered to their original proposals.

Sir Robert Morant's reply, dated November 17th, is extremely interesting. He regretted that the committee were unable to agree together upon any effective amendments to their original scheme which would make the new Council to a greater degree representative of the teaching profession as required by the Act of Parliament. The Board noted with surprise that the committee had shown no inclination to include in their deliberations those other educational societies that had asked for representation, and pressed upon the committee the necessity of modifying their scheme. The Board demurred to the suggestion of the committee that any necessary modifications should be left in the hands



between rival claims. It was for the teaching profession to formulate proposals which should be generally acceptable, and it is clearly the intention of the Board not to sanction any proposals which are not sufficiently representative. This being the condition of affairs, it seems to be most opportune for an Association like ours to put in a claim for representation. It is quite evident, I think, that the new Registration Council cannot be considered sufficiently representative unless it includes such an important section of the profession as the Training Colleges. I have therefore much pleasure in proposing the first part of the resolution.

And with regard to the second half of the resolution, I think it would be difficult to find a stronger claim to recognition for a place on the Register than service in a Training College.

#### THE HON. MRS. COLBORNE.

During an interval of the Association Meeting, the Hon. Mrs. Colborne was presented with an address and a cheque from the Women's Colleges on her retirement from the service of the Board of Education as Directress of Needlework.

The presentation was made by Miss Manley, who referred to the value of Mrs. Colborne's services, and to the respect and esteem that the Colleges felt for her work and personal qualities. An appreciative reply was given by Mrs. Colborne.

#### A PEDAGOGICAL MUSEUM.

By DR. PERCY NUNN.

The new building of the London Day Training College (Southampton Row, Holborn) contains a room of considerable size set apart for several useful functions. Along two of the walls are series of glass-topped cases whose contents are intended to justify the name of "Museum," by which the room is known. These will consist in part of a permanent collection illustrative of the history of teaching methods, and, in part, of temporary exhibitions illustrative of special provinces of modern educational practice. (The school journey is the subject of its present exhibition.) But the most important function of the room will be to serve as a "preparation room" for lessons in geography, history and literature. For this purpose it is equipped (beneath the museum cases) with a large number of drawers and cupboards designed of different sizes and shapes, for the convenient storage of a collection of maps, plans and other geographical illustrations, historical and literary portraits, and facsimiles, globes, and models of all kinds. The contents of the drawers and cupboards are catalogued and indexed, so that the student's attention is readily directed to the material illustrative of the lesson he has in hand. The centre of the floor is occupied by flat tables, large enough to permit of the convenient study of a wall map or the large sheets of the Ordnance Survey. With a view to such uses the room is lighted by "inverted arc" electric lamps which yield a brilliant illumination so uniformly diffused that practically no shadows can be formed. It may be added that the museum adjoins the Manual Training Room where are conveniences for the manufacture of models in clay, cardboard, wood, and other materials.

The responsibility for arranging and cataloguing the contents of the Museum is entrusted to post-graduate students under the supervision of a member of the College staff.

## PHYSICAL TRAINING IN THE COLLEGES.

By LIEUTENANT F. H. GRENFELL,

*Director of Physical Training at Eton College.*

Physical training in the restricted sense of educational gymnastics, comprising formal gymnastic exercises, gymnasium games, and practical applications, is an artificial means of training the body and establishing the health. It appears to be necessary for children under modern conditions of education, more especially for those of the poorer classes in large towns who have little or no opportunity for exercise in the open air in favourable surroundings.

The controlling factor in the selection, arrangement, and application of the exercises used in physical training should be the needs of the human body. The effect of every exercise must be correct from the point of view of our present knowledge of anatomy and physiology, and have a direct bearing upon the result at which we aim. The Swedish system of educational gymnastics appears to fulfil these conditions more satisfactorily than any other. This system contains exercises on apparatus and exercises without apparatus—the so-called free standing exercises. The exercises, however, are not classified on these lines, but are grouped solely according to their different physical effects. Apparatus is used to get effects which could not otherwise be obtained; in some cases it makes an exercise harder, in others easier, than the corresponding free standing type of exercise. Thus the employment of apparatus makes possible a more even and extended progression in the training.

A detailed description of the Swedish system can be found in several books—the *Naval Handbook of Physical Training*, and Broman's *School Gymnastics on the Swedish system*, may be mentioned—and I will not

attempt to give one here, as it would occupy too much space. I would rather point to the fact that the Navy, Army, and Board of Education have accepted the system after careful investigation by their medical advisers as the basis of their schemes of physical training.

Since this is the system which the elementary school teachers have to employ, it should be the object of the Training Colleges to make their students familiar with it, and I shall assume, for the sake of argument, that the Training Colleges accept this position.

Some training for the teacher is essential if he is to carry out the physical training of children intelligently, and since it is inevitable that the elementary school teacher must himself do the work, it follows that he must have some training. I do not mean that he should be an expert in physical training, but he should be well grounded in the exercises he is to use and the proper method of applying them, and have an intelligent appreciation of their effects.

Teachers thus trained may be safely entrusted with the practical application to the children of schemes of training devised by experts. These schemes should be quite definite, and leave no more to the initiative of the teacher than his training will reasonably warrant. For example, it is unreasonable to ask him to let his work be guided "by a consideration of principles" (*vide* existing syllabus) of which he can have little knowledge. A syllabus embodying such schemes of work will give the teacher just what he needs, that is, a clear indication of what he has to do with the children; all the difficult problems of progression, etc., having been worked out for him by the expert. It must not, however, be supposed that a syllabus can take the place of training.

It is to be hoped that the new edition of the syllabus will be compiled by those who are real experts in the subject of children's physical training. For this work, an essential qualification is long experience of teaching

the system to children. Fortunately, we have in England those eminently qualified in all respects for the work, and it is earnestly to be hoped that they have it in hand. If entrusted to those without experience of training children, or with merely an academic knowledge of the system, the book will not correspond to the needs of the elementary school teachers and children. Simplification without sacrifice of essentials is only possible for the real expert.

Expert supervision of the physical training in the elementary schools is in the same case with the syllabus; it can only become effective with trained teachers.

In a word, the whole question of efficiency in the physical training of the elementary schools turns upon the provision of teachers trained in what they have to do. It is right, therefore, that every effort should be concentrated upon this, and the Training Colleges are the key of the position.

The Training Colleges certainly appear to have just cause of complaint against the Board's demand for the immediate provision of instruction in physical training on Swedish lines. This can only be given by competent physical training teachers, who are not yet forthcoming. It would be unfortunate to insist upon any definite scheme of instruction until these teachers are available. These remarks apply only to the provision of male physical training teachers, because there should be no difficulty in immediately procuring an adequate number of women teachers. Several Physical Training Colleges in England in the last 20 years have turned out hundreds of women teachers thoroughly trained in the Swedish system—notably Madame Österberg's College in Kent. We have no need to go outside the country for expert women teachers, because the training in Swedish gymnastics many of our women teachers have received is at least equal to anything of the kind abroad, even in Sweden itself. The South-Western Polytechnic also, I believe, has lately adopted the Swedish system for the training of its women gymnastic students.

When expert instruction is available, the course in the Training Colleges should, I think, follow the general lines sketched out below.

The object of the instruction is not to produce experts in physical training, but efficient executants who are capable of conducting the children's physical training lessons in a correct and stimulating manner, who understand what they are about, and can intelligently carry out the directions contained in the syllabus or given them by the supervising expert.

The students' training should have a double purpose; it should be directed towards improving their own physique, and also to forming them as teachers of physical training. A good physical training for the benefit of the students themselves would seem to be very necessary in view of their close and continuous application to mental studies; it is also required to make the students feel the effect of the training in themselves in order to appreciate fully its value to others. The mind may be convinced by an academic study of the subject, but unless the body is a constant reminder of the benefit that may be derived, the impression will soon fade, and their work as teachers will degenerate. The students' personal training will necessarily carry them beyond the point attainable by school children, but in it can be incorporated every exercise the students will subsequently have to teach.

The training of the students to teach physical training should include practical and theoretical instruction. The practical part should consist of constant practice in the teaching of children, which should be considered as by far the most important subject. Let the students meet the difficulties to be encountered in this work while they have some one to show them how these may be overcome. I would insist with all the force at my command that the physical training of children is a complex and difficult business, and can only be mastered by patient practice and observation. If the teacher has



Training College, in most cases he will never wholly master them. It is, therefore, most important that the students should have early and constant opportunity of teaching children under expert supervision.

Interest is the one thing essential to success in the physical training of children, and I am quite confident this cannot be got with free standing exercises alone. A liberal admixture of simple games is wanted, and these should not be without a definite physical purpose, although this must not be apparent to the children. Again, the use of some simple apparatus adds greatly to the variety and interest of the work, and has the additional advantage of providing new and important effects. It is very desirable that elementary schools should be supplied with such apparatus as gymnastic benches, ropes, and jumping lines, and with such inexpensive material for games as balls, bean-bags, etc. It is true that the existing syllabus contains a recommendation that games should form part of every lesson, but the teacher is not told what games to play, and he cannot be expected to evolve them out of his own head. So that the practice and teaching of games should be a regular part of the student's instruction, and it is to be hoped that space will be allotted in the new syllabus for descriptions of appropriate gymnastic games. No great elaboration is needed, as most of them can be described in a few lines.

The student's theoretical instruction should give him a good general idea of the aims and objects of the training, and how they may be realised. It must include some anatomy and physiology treated with special reference to physical training, and an explanation of the principles and technicalities of the system. The correct method of giving commands, and of teaching exercises and correcting faults, etc., should also be taught.

The arrangement of the instruction in anatomy and physiology should present little difficulty, because

incorporated in the Hygiene course with some little expansion and amplification. This could be easily arranged between the teachers of hygiene and physical training. I understand that some of the Provincial centres in Scotland are adopting this arrangement.

In conclusion I would plead that the Board of Education should not consider the training of the students completed when they leave the Colleges. I am confident that after a year or two of battling with the difficulties by themselves the teachers will derive much profit from a vacation course, when the review of old work in the light of practical experience will bring out many new and valuable ideas hitherto unrealised, and where advice may be obtained about individual points of difficulty.

## THE BOARD OF EDUCATION AND PRACTISING SCHOOLS.

By PROFESSOR J. W. ADAMSON.

"It is commonly supposed that experiments in education are not needed, and that Reason alone will enable us to judge whether a thing is or is not good educationally. But this is a great mistake, and experience shows that the consequences of our experiments often turn out quite contrary to our expectations." The conviction thus expressed by Kant has been long in getting itself established as a truth of general concern and acceptance; but the attentive observer of such matters has ample evidence to-day of the wide-spread activity of the scientific experimenter in things educational. Professor Green's article in the first issue of *The Training College Record* collected a good deal of this evidence, and, since that article was written, one or two books of importance have demonstrated the high value, for the student of Education, of properly conducted experiment.

This is not a question of the mere empiricism which attaches itself to so much of education everywhere, and not least in our own country. Its deprecation of "theory" notwithstanding, such empiricism very often rests on *a priori* assumptions which stand much in need of verification. Experimental pedagogy ventures to test such assumptions; the so-called "practical teacher" never does. Nor are the requirements of educational experiment to be satisfied by the administration, as a kind of cathartic to "practical experience," of an independent course of psychology. Too often the psychology employed for this purpose has been quite out of touch with the school-room, and therefore of exceedingly small value to the teacher; or, what was worse, the psychology, being itself chiefly of the *a priori* sort, only served to intensify the evil it was meant to counteract.

The teacher who is to profit from an experimental

problems of instruction, of organization, and so on, and the methods, psychological or otherwise, of grappling with these problems. For the most part, he will also find it necessary to know what kind of questions the psychologist is asking, and how he now tries to answer him; he will then become aware that there are questions that the psychologist asks no longer. Above all, he needs to cultivate a feeling of caution, both with reference to novelties whose newness is their sole recommendation, and also with reference to use and wont, so that he will recognize a fallacy even when it is hoary with age, or commonly regarded as axiomatic.

If knowledge and mental attitude of this kind are to characterize the teacher actively engaged in his profession, it is clear that a beginning should be made during his novitiate in the training college. Do we find any indication of this in the Board of Education's "Regulations for the Training of Teachers"?

"The Board has been at great pains to make known its high appreciation of the experimental method as at once a means of advancing knowledge, and of educating the experimenter. It is true that experiment is considered in the "Regulations" chiefly in relation to the non-professional studies of intending teachers, and that its application to professional studies is conceded rather than insisted on. "Even on the professional side of the Training College course this principle must be remembered. The necessity for experiment and observation over ever-widening groups of phenomena is the most striking aspect of modern psychological investigation, and the teacher in training will gain much by watching some of the work that is now proceeding in the observation of children." ("Regulations," *Prefatory Memorandum*, p. xvii.)

The point being thus conceded, we may therefore expect to find the Board willing to do its best to make the experimental method available as part of the course of training. In particular, we should expect that the

secure for every training college a practising school in such organic connexion with itself, that due correlation of the theoretical instruction with the students' work and observation in that school should be as easily brought about as it is obviously necessary. We should expect that the Board, lacking the ability to effect so close a connexion as this between college and school, but appreciating to the full the peculiar functions of a practising school, would, by regulation or by legislation if necessary, ensure that those functions could be satisfactorily discharged. Local Educational Authorities, following the approved bureaucratic manner, decline altogether to discriminate between practising schools and schools in general. Rules respecting text-books and apparatus, time-tables, the number and standing of teachers, the size of classes and the machinery of school-organization in general which are thought by the Authority, or its officers, to be equally applicable to all the elementary schools of a county or a borough, are strictly imposed upon a school whose business it is in part at least to offer an exercise-ground and an educational laboratory to the intending teachers who practise there.

The language and general outlook of the *Prefatory Memorandum* lead one to expect that the Board would make it unmistakably plain to Local Authorities that the wholesale imposition of rules of this kind renders the experimental method all but impossible in the training of teachers. Nay, more, one is induced to expect that the Board would reserve a large measure of freedom and elasticity to managers of Practising Schools in respect not only of the details of school management, but also in the more important things which concern the character of the teaching staff and the nature of the school's curriculum.

These are legitimate expectations. But, as Kant reminds us, the issue of our inquiries is often quite contrary to what we expected. We turn from the

ness end," and we discover—Appendix F. The authorities of practising schools are there thrown to the wolves with the expressed hope that these won't bite them badly; to make things agreeable all round, the wolves receive a hint or two, that it will be well if they sharpen their teeth.

The view which the Training College Association has taken of this question is fairly represented by a report drawn up by a sub-committee so long ago as 1904. Since that date many representations of a similar nature have been made to the Board by the Association; but hitherto the consequences have not disclosed themselves. The sub-committee's report is as follows:—

"In consequence of recent changes in the administration of public education, this Association desires respectfully to represent to the Board of Education, the exceptional position occupied by the Practising Schools, in order that the usefulness of those schools to the public service may be maintained. The Association regards these schools as, first and foremost, places of education for the children attending them, and no one is more anxious that that character should be preserved to them in all circumstances; but as an indispensable part of the organization for the training of teachers, Practising Schools differ in several respects from schools not so used.

"Their special function calls for exceptional treatment of those schools in respect of staffing, curricula and equipment. For example, their teachers should be appointed not merely for ability to discharge the usual duties of the school-room, but, in addition, for their fitness to co-operate with the Training College in conducting the technical instruction of the student-teachers. Again, text-books, apparatus, furniture, and equipment generally, which may very sufficiently meet the needs of an ordinary school, may be inade-



quate or unsuitable, when made to serve the various purposes of an institution which is also, in a measure, an educational laboratory. Further, it is of the highest importance that a field should be reserved wherein experiments in method and curriculum may be tried under expert direction; such experiments might be much hindered, or even rendered impossible, if all the minute regulations as to curricula and time-tables were made to apply equally to the Practising Schools as to all other schools.

“This applies with special force in those cases where Practising Schools have been provided by the Training College Authorities to enable them to carry out the training of students more efficiently in accordance with the directions of the Board of Education. These schools will fail in the specific purpose for which they exist, if it is not possible to co-ordinate the methods of practical teaching as given in the lecture-room with the actual methods carried out in the school.

“The best judges of a Practising School’s requirements in these and the like matters are those who deal at first hand with the problem of training persons to teach. In the general interests of Education, therefore, the Association begs to suggest that a large measure of discretion and control in respect of the staffing, equipment and curricula of Practising Schools should be given to the responsible authorities of Training Colleges, acting in concert with H.M. Inspectors especially engaged in Training College inspection. It is not for this Association to indicate the manner in which such discretion and control might be secured; but in as much as the Board of Education exercises authority over all Training Colleges, by way of its ‘Regulations,’ and otherwise, it may be possible to frame a further regulation, or regulations, having that

The Association does not ask that the children who are being taught in Practising Schools shall be sacrificed to the students who practise there. As all who know these things from the inside are aware, the Practising School, regarded as a place of instruction, has a balance of advantage over most schools in the stimulus which comes from the students’ presence and work. When a practising school ceases to be a true school for the children in attendance, it ceases *ipso facto* to be a place where intending teachers can be usefully trained. It is to the interest of all concerned that practising schools should be maintained in a state of full efficiency as places of education.

Since the above report was written, the Association has pointed out that a circular letter from the Board to Educational Authorities might do much to place practising schools in a position more favourable to the discharge of their proper duties. It would seem that this end would be even better attained, if the Board’s *Code and Regulations for the Training of Teachers* were to include paragraphs enabling such schools to justify the name they bear. The Association has more than once suggested that, when an Education Bill is drafted, a clause be inserted giving such schools a certain measure of administrative and financial independence.

One gratefully recognizes the good intentions of the Board as stated in the *Prefatory Memorandum*; but so long as these are nullified by the policy laid down in Appendix F, the Board is in the position of praising a course of action which is excellent—if pursued by somebody else. Training Colleges are continually being advised or compelled to do things which cost nothing to anybody but themselves. Here is an opportunity for the Board to carry out its own good counsels at its own proper charges.

## EXPERIMENT IN EDUCATION.

By PROFESSOR J. A. GREEN.

In briefly recalling some of the work that has been done during the last year, it is necessary to keep in mind the distinction in type which must characterise all pedagogic investigation—the difference, that is to say, between the analytic and synthetic method of approach. Characteristic of the latter method is that which is being carried on under the guidance of Professor Findlay in Manchester, whose *Demonstration School Record* appeared early in the year. Here the aim is primarily one of organisation. Starting with certain *à priori* principles, much pedagogic skill is being applied to the problem of curriculum. The inspiring note, from the kindergarten upwards, is that of social service. In mutual helpfulness the atmosphere of home is kept up, and parental activities with which the child is familiar occupy his attention in a practical way at school. So far as possible, Fröbelian symbolism is abandoned. The children build with real bricks and real mortar, they weave with actual weaving materials, they sow and reap actual corn.

The Chicago work of Dr. Dewey is being tentatively followed, and the principle of culture epochs is provisionally accepted as a guide in the working out of a curriculum. It is hardly necessary to point out the twofold danger involved in adopting such a principle. The culture epochs we assume may not correspond to actual facts. The precision with which enthusiastic disciples of Ziller have described the steps in man's advance from primitive savagery to American citizenship has brought not a little discredit on the theory, as applied to the problem of the school curriculum. And there is again the danger of forgetting the short-cuts by which development in the individual avoids the many turnings and byways which the stress of haphazard circumstance has inflicted on the race. Once mind appears in the

throw the gravest doubts upon any very serious application of the principle to the case of children at school. Professor Dewey surely neglected present-day demands and present-day influences. In Manchester they are not losing sight of the fact that it is the out-of-school life of the child that is the chief factor in his development, and that the function of the school is at once to enlarge and interpret that life. The curriculum is not in the air, and systematic attention is given to the formal arts of arithmetic and writing and special investigations are being made in the methodology of arithmetic and reading, the results of which we shall look for with interest in later volumes of the *Record*.

It is not possible in a short miscellaneous article to do justice to this pioneer volume. I may question pre-suppositions like the theory of culture epochs and the theory of concentration, and even if I were ready to surrender my soul to them, I might still cavil at the particular way in which the theory is worked into a scheme of study, but I cannot deny the suggestive value of the book. And, after all, the Manchester workers could desire nothing better than to be a source of professional inspiration. There can be no finality in constructive work in any department of life, least of all in teaching. For us to forget this, is to hark back to the times when "normal" schools and colleges were invented and young men and women went there to learn methods. The "master of method" still survives in name, but we may hope that he has long outgrown his titular origin and that he is chiefly concerned in imparting points of view, in establishing fundamental principles, and, above all, in leading his students to realise the variety and individuality which characterises good teaching.

Of other work that has appeared in English during the year, probably the most important is that on the *Psychology and Pedagogy of Reading*, by Professor Huey. As its title suggests, the book begins with an

cess. The author has himself done much to overcome the difficulties encountered in the investigation, especially that part of it connected with the movements of the eye, so that we might expect a thorough treatment of the whole subject at his hands. He gives an admirable critical summary of other men's work, showing in the clearest possible way that we do not read literally, that we recognise our words as wholes having characteristic outlines, and that methods of teaching which insist too much upon analysis and letter values, set up hindrances to rapidity and effectiveness later on. When we accept his definition of reading as the art of getting the meaning out of a printed page, we shall probably be prepared to drop much that is typical in our present methods of teaching to read.

The most important event in connection with the new movement has been the appearance of Professor Meumann's *Vorlesungen zur Einführung in die Experimentelle Pädagogik*, which, though published in 1907, came to me too late for discussion in the last issue of the *Record*. Two large volumes, each containing five hundred pages, are not easily mastered, in spite of the relative clearness and fluency of the author's style. As one reads them, the advantages of compression and of occasionally taking things for granted suggest themselves over and over again. In characteristic German fashion, Professor Meumann is nothing if not thorough. If he is writing about the pedagogy of reading and the investigations of physiologist and psychologist in connection therewith, he must start from the beginning and tell us the story of Pestalozzi's researches and then we must have an account of practical methods—alphabetic, phonic, etc.—all of which might have been spared us. Probably every chapter would gain by being shortened. Perhaps the German student is a better hand at skipping than the Englishman, though one would expect his thrifty soul to welcome smaller books at lower prices.

The first volume is in the main analytic. Each

done and suggestions for future investigation. The point of view that characterises the book is laid down in the preface. "Pedagogy is neither applied psychology, nor applied ethics, nor logic, nor anything of the kind. It is indisputably an independent science whose future 'depends on the creation of opportunities for experiment' and the methodical training of persons capable of research in this field. The need for pedagogico-psychological laboratories is absolute. But as critics have already pointed out, the laboratory cannot solve the question. The synthetic processes of the school are the final subject of investigation, and unless the laboratory and the school work in intimate connection the results will probably be barren in the extreme. The psychologist may draw certain pedagogical conclusions from his results, but such conclusions are not final. They are not more than guides to new researches which must be carried out in the classroom.

Taking his start from the principle that the child is the centre of interest in all pedagogical problems, Professor Meumann suggests the following outline as fairly covering the field of work to be undertaken:—

1. Enquiry into the intellectual and physical development of the school-child.
  - (a) The periodicity of this development—regular and irregular advance.
  - (b) The relation between the physical and intellectual development of the child—is the development of the one side parallel with that of the other?
  - (c) Characteristic differences between normal children of various ages and adults.
  - (d) Variations of individual children from the normal line of development (precocious and backward children).
2. Development of the various intellectual powers of the child—memory, imagination, etc.
3. The study of individuality in children.

5. The attitude of the child to his schoolwork, including—
  - (a) The technique of schoolwork, for example, the question of economy in the method of learning by heart.
  - (b) The hygiene of schoolwork for pupils and teachers; of special importance under this head is the subject of fatigue.
  - (c) The relative value of work at school and work at home.
6. The question of methods of teaching in the various school subjects. In arithmetic, for example, what is the truth in respect of so-called concrete methods of approach? Are they really so helpful as to justify the variety of objective illustration commonly employed?
7. The teacher's own activities, a subject on which "the results of enquiries so far give little to say."

Two things are to be noted in this programme. In the first place, as the author is careful to state, there are some questions which the teacher has to face that cannot be treated experimentally. The question of the ultimate aim of education is one that in the long run society itself must settle for the teacher, though this does not deprive the teacher of his right to do all in his power to influence contemporary thought on the matter. Similarly, experiment will not help a teacher who is free, to decide whether he shall teach European history, or whether he shall make a strong point of chronology in his course. In such cases the goal he is making for will be settled by his view of the subject itself and its bearing on the final purpose of education as he sees it.

In the second place, the programme probably errs in over-emphasising analysis. From the practical standpoint the seventh item in the programme is not the least important, though it is a departure from the original principle, viz., that it is the child who is the starting

point of the problem. Any theory of teaching practice which left the teacher's personality and actions out of account would be lamentably inadequate. In the past we have fixed our attention upon the teacher. Our "method" books, for the most part, contain nothing but directions for his use. In the new movement, the danger of passing to the other extreme is not to be overlooked.

A comparison of Professor Meumann's programme with that sketched by Professor Findlay in a paper on "Scientific Method in the Study of Education" will bring out the relatively restricted outlook of the former. It is concerned with the problem in its psychological aspects. The comparative study of curricula such as in one department we may base upon Professor Sadler's volumes on *Moral Education*, or of the administration and control of educational institutions, both constitute important branches of the subject that lie outside the sphere of experiment.

Space forbids a detailed analysis of the various lectures in Professor Meumann's volumes. The problems he discusses are of the most far-reaching importance, often shaking our faith in the presuppositions on which a lifelong teaching practice has been based. For in this regard we may note that it is no proof of the economy or of the correctness of our methods to say that children have successfully learned things at our hands. Happily our children have it in them to learn in spite of mistaken procedure. We are all familiar with the stray who unexpectedly reveals himself and puzzles or annoys his teacher. May not the systematic study of the "stupid child" reveal errors in our practice which are hidden by its apparent success in the majority of cases? Every day, for example, we find teachers offending against the economy and technique of learning by heart in requiring their pupils to commit a poem to memory stanza by stanza or line by line. Finally the children accomplish the task, but the result is uncertain in some and very fleeting in most cases. We may comfortably put this



down to differences in "brain plasticity" or to some other equally hypothetical cause, or we may study the mistakes that occur in reproduction and discover that our procedure actually encourages the formation of numerous series of connected muscular movements which have to be broken up again before the whole piece can be fluently reproduced. When a child, for instance, repeats a particular stanza over and over again he links up the last with the first words of the same stanza instead of with those of the next, and in this way sets up physiological difficulties to overcome which costs both time and energy, and in the end the result is less certain and less permanent than if such difficulties had been reduced to a minimum or avoided altogether.

The teaching of drawing, of reading and of arithmetic form the subjects of three most instructive chapters, not always by reason of the positive results arrived at, but rather on account of the rigorous psychological analysis of the complex process themselves, thereby suggesting methods of individual and collective experiment which may in the future throw light upon the teacher's procedure. It is always the child's attitude towards the subject that is the object of search. Thus, following Pestalozzi, we have for a century supposed that the abstract notion of number was best reached by the child if we furnished him with abundant and varied concrete illustration. This idea neglects the part which the sense of time has been shown to play in our notions of number. When I think of sixty-two and try to realise it, my first impulse is to measure it by the time it would take me to count as many. I certainly do not find myself spontaneously arranging it in groups or figures of any kind, though individual variation is in this respect considerable. Space relations develop much earlier in the child's consciousness than time relations, the appreciation of which appears to synchronise with and to develop along with his growing appreciation of number. It is certain, in any case, that we may easily overdo the concrete illus-

is one of interest and importance and, further, one which lends itself to experimental treatment as Waisemann and Lay have shown.

Amongst the more strictly psychological topics, none is of greater interest than that of tests for capacity. What a gain it would be if we could find some method of estimating the potentials of our individual pupils! Binet in France and de Sanctis in Italy have devoted a great deal of attention to the subject. Every issue of the *Année Psychologique* shows Binet's continued interest in it, particularly from the point of view of defective and abnormal children. In discussing their work and that of many other less well known psychologists, Meumann arrives at the conclusion that all methods which employ isolated tests are useless. In the Karlsruhe Training College, I remember one of the teachers showing me two closed tin cylinders alike in every respect, except that of size. These he used as a test of mental power and he found that the clever children, on taking the cylinders in their hands, always said the smaller cylinder was the heavier! His demonstration with a number of children from the practising school was unsuccessful—perhaps the presence of a curious stranger interfered with the normal working of the children's minds. Devices of the kind savour of quackery. They do not rest upon analysis, which is not less important in psychological than in any other form of experimental enquiry. Acceptable tests of intelligence must be presented in a graduated series, every step in the series must be applied to a particular activity, and the series as a whole must give a more or less complete picture of the individual on his receptive and on his responsive sides.

As indicating the sort of thing which appeals to Meumann, I may quote the series of tests devised by De Sanctis for estimating various grades of feeble-mindedness in children:—

1. From a group of six balls of different colours the

2. The balls are mixed up again under cover, and the child is asked to point out the one he selected previously.
3. In a group of objects composed of five Fröbelian cubes, three balls and two pyramids, the teacher points to one and asks the child to point to another like it.
4. Triangles, right angles, and squares drawn in black upon a sheet of cardboard are presented to the child and he is asked to point with a pencil to those figures which seem to him like the cubes of the previous exercise.
5. Twelve cubes of different sizes are placed on a table at varying distances from the child and he is asked how many there are, which one is the largest and which one is furthest away.
6. The cubes are covered up and the child is asked—
  - (a) Which are the heavier, the large or the small things.
  - (b) If (a) is correctly answered, why are small things sometimes heavier than large ones?
  - (c) Which looked bigger—the things near to you or the things far away?
  - (d) Did they seem so only, or were they really so?

For purposes of comparison various notes are taken in the course of the enquiry—*e.g.*, of the time taken to do the things required in the first five tests, and of the errors made in tests 4 and 5. The child who gives an intelligent answer to question 6 (d) cannot be regarded as intellectually defective, the author of the series thinks.

There is much in the book that will meet with strong opposition from practical teachers and some Herbartians will not view with favour the general leaning which Meumann shows towards formal training. A striking instance of the unorthodox attitude taken up is that in which fairy stories are condemned. Meumann objects

time relations by children, and the over-stimulation of ideation in the realm of the “unreal,” already sufficiently provided for by the instability of the connections between idea and reality in the child mind.

But enough has been said to indicate the varied and interesting nature of the contents of Professor Meumann's volumes, which are a monument of learning, of industry and of devotion to a cause which German teachers themselves are doing much to help on. They have, for example, just set up and undertaken to maintain a laboratory in Leipzig—the classical home of Experimental Psychology. The Teachers' Association of that city, assisted by the larger association of Saxony, has spent £600 on the necessary equipment and stands as guarantor for an annual expenditure of anything from £150 to £200. The Institute has eight rooms—a lecture room that will seat a hundred, a smaller lecture room, a dark room, and five rooms fitted up for experimental work. The spirit underlying all this is well expressed in the speech of the president of the Teachers' Association of Saxony, an invited guest at the official opening of the new institution. “These institutions constitute the intellectual weapons of the German teachers. They prove that we are not primarily concerned with the economic prospects of the teaching profession, but that we are, above all things else, interested in the question of the thoroughness of the scientific training which membership of that profession shall imply.”

It is not possible in a short article to do more than indicate what is being done in this relatively new field of research. The movement has not received universal approbation. Indeed, German Herbartians assembled in Magdeburg have expressed their strong dissent. Meanwhile in our country, the British Association (Section L) has appointed a Committee under the chairmanship of Professor Findlay to consider and report upon the methods and results of research into the physical and mental factors involved in Education.

## THE ART OF STORY-TELLING.

By PRINCIPAL BURRELL.

The present paper aims at being entirely practical. It will, as far as the writer can do so, reveal the secrets of the prison-house; and though it is not usual for people to give away secrets, I am quite ready, at the invitation of the Editor, to say all I know. It is not much.

My only claim to write upon the subject at all is based on this, that for the past twenty years and more I have, as a Professional Story-teller, stood before audiences in many of the larger towns and cities of England. Audiences of all sorts and sizes and ages have convinced me, if ever I needed convincing, of the delight that still accompanies the told story, as distinct from the recitation, a delight as great to the teller as to the listener.

There appears to be a revival, or an attempt at a revival, of the art. It is one of our new experiments. Perhaps, therefore, no time need be wasted in laying stress on its importance to the teacher at every turn of his life, in every classroom that he visits.

There are no books upon the subject; scarcely are there any intentional references to it. The art has been and is so widespread, so common in every town, village, home, that nobody has thought it worth while to treat it seriously. Yet, a moment's reflection shows any reader that it must be the oldest art in the world; and, indeed, as a constantly practised profession, story-telling has yielded but lately to the printing press in the town and the cheap lamp in country districts. The halfpenny newspaper and artificial light have killed the Professional Story-teller. The Reciter, a very different article, flourishes.

The most striking examples of the art in the Old Testament occur in the history of Joseph and in the tragic stories of Nathan and Jotham. The New Testa-

means of education; and it is startling and humiliating to think that, with the numberless references to the parabolic method and to its importance before them, the clergy and ministers of all denominations consistently and consciously disregard what they know to have been the method, the particular and peculiar method of Him whom regularly they appeal to as the Great Teacher. Neither at street corners, nor in mission rooms, nor in hospitals, nor in Sunday schools, nor in pulpits do we find any attempt whatever to ransack the wealth of literature, home and foreign, modern and ancient, in order that this method of Jesus may even be tried. (I have asked the Editor to italicise the foregoing words; if I could have written more bluntly on the matter I would have done so.) To the objections that the method is Oriental, that suitable stories do not exist, that we cannot tell them well enough, there is but one reply: *the method was the method of Jesus*. Moreover, the Western world is just as much fascinated by the Story as the Eastern; suitable stories exist by the score, and the art is one that at any rate can be practised. St. Paul has killed the Parable.

In profane literature Herodotus' history (*passim*) and Plato's dialogues, not only contain admirable stories, but point to the value of the story as a means of impressing an audience; the "Aeneid" tells us of Aeneas' long narrative, the "Odyssey" of the story-telling of Odysseus. With or without music the story flourished all through the early and middle ages, and "Aucassin et Nicolette" is only one of the masterpieces. A copious list of medieval books will be found in Professor Schofield's "English Literature from the Norman Conquest to Chaucer" (Macmillan, 6s.), while Aesop (never yet fully translated and purchaseable for 9d.), Pilpay, the "Gesta Romanorum" and Dunlop's "History of Fiction" are full of adaptable work. But they are mentioned here merely to show the long ancestry which this art can boast. Mr. E. S. Hartland in his "Science of Fiction" is one of the few writers who refers to

definite descriptions of story-tellers. He quotes from Burton's "Nights" (x., 163), von Hahn ("Greek and Albanian Stories"), Mrs. F. A. Steele ("Legends of the Punjab") and Pitre's "Library of Sicilian Popular Traditions," as well as from H. F. Luzel's "Veillées," and brings the modern story-teller before us, entrancing his crowds. (All these books are in the British Museum; Pitre in Italian, von Hahn in German.)

Perhaps it is unnecessary to say that we do not yet in England recognise story-telling as an art, though there must be thousands of people who excel in it, without knowing their excellence. By those who believe in it the following claims (preposterous though they seem) are gravely put forward:—

That it is one of the best ways known to man of teaching and training the young.

That it discourages (in this nation at least) all sham passion, all exaggeration, all taught "expression"; and that it encourages simplicity and honesty of thought and voice.

That it interprets literature and leads to a real love of literature.

That it finds out and develops the beautiful, the quiet, the artistic side of a child's life and is in deadly opposition to all that is bold, blatant, coarse and vulgar.

That it demands from teachers and from children who practise it a great deal of memorising of fine passages which remain a perpetual treasure.

Perhaps this is the place to enumerate some of the objections which are put forward whenever anyone wishes to start a Story-telling Club. We are told that the power to tell a story well is a gift, and that it cannot be acquired. The obvious reply is that it is a gift, to nine children out of ten; and that being uncultivated, it lapses. We are further told that young adults are too nervous, or too self-conscious to make the attempt. To this the reply should be that the value of story-telling

(not) told that all teachers think they possess the power. The reply to this is that, if they would listen to a first-class story-teller, the majority would discover that there was something still to learn.

The general rules to be observed are as follows, whether stories are told for adults or for children, or by children:—

1. A Common Place Book, quite large, must be kept constantly at hand. Even if stories are not entered as the student comes across them, a careful reference, indexed twice, should be made. A story may often be thus recaptured after many years.

2. Stories should, as a rule, be good in workmanship. Slovenly writing always shows itself under the high light of the voice. The "Crucifix" (J. P. Richter), the "King's Evil" (L. Housman), the "Black Bull of Norway" (polished by generations of story-tellers), the stories in the books of F. W. Bain (James Parker & Co.) show examples of this literary polish. Even children are quick to recognise it.

3. Stories should be unhackneyed. Although Red Riding Hood and Jack and the Beanstalk are very well in the first stages and are very well indeed, if thoroughly illustrated, in later stages, still unhackneyed work repays the teller ten times over. An hour spent with Luzel, Gonzenbach, and Julius Wolff is a revelation to one who knows only Grimm, Andersen and Perrault. The same is true of adult work. It is much better to put aside Mark Twain and Dickens (only because they are hackneyed) and to take up Cable and Daudet, Coppée and Miss Wilkins.

4. Stories should suit the teller. There is a something in each good story-teller which differentiates him from others equally good: he is therefore the best judge of work suitable to himself. This is said notwithstanding the fact that a list of stories is added by the writer.



5. Whenever necessary, either for children or for adults, the story should be 'cooked.' By this vandal statement is merely meant that the teller should not be afraid of cutting out a line or two and modifying a phrase or two. For instance, no story-teller should give the last lines in the stories from the "Digit of the Moon" (F. W. Bain) or the "Happy Prince" (O. Wilde). From his point of view they are inartistic and absolutely harmful.

6. Moralising should be avoided. Morals, if required, should be hinted at. Krummacker's "Parabeln" seem to err in this direction, as do many modern books too numerous to mention. As an example of admirable restraint the "Golden Windows" of Miss L. Richards may be mentioned. *All books attempting to teach morals directly in the story should (in the writer's opinion) be shunned like the plague.*

7. Practising work (including close memorising) should be done privately, without any fear of interruption. A locked room at the top of the house, where the student can cry aloud and growl and sob (artistically or actually) is much to be desired; interruption during practice is fatal to improvement.

8. All practising should be done within reach of a full length mirror. A slip of glass can be bought for a few shillings. No one knows how bad his gestures can be till the mirror has reflected them.

9. Voice-study (*i.e.*, the study of the effects produced by the story-teller's own voice) should be unintermittent. Plato is said to have written the first sentence of the "Republic" ten times before he was satisfied with the rhythm of it. Voice-rhythm requires equal patience; but the voice is its own interpreter.

10. A candid friend (if obtainable) is of great use. He must be encouraged to speak out and must never be argued with. All that he says must be considered

when large audiences face the story-teller. No story-teller ever yet knew, in the early days of his art, whether or no he was audible everywhere, restful, at ease, too loud, self-effacing.

11. The last word hints at the Golden Rule. Unlike the reciter, the true story-teller must be self-effacing. *It is the story that matters.* Any trick, advertisement, or bombast that brings the teller of the story violently to the front, must be ruthlessly uprooted.

The foregoing are general rules applicable to all story-telling, all story-tellers; the remarks that follow deal particularly with stories for children, stories by children, and adult stories.

*In stories for children*, it is better to choose work of some length (the teaching of the "Arabian Nights" in this matter is true). This does not mean that the stories are not to be varied; but a connection by light links is useful. The characters thus become heroes of a loosely constructed epic.

There are great possibilities in the way of lantern illustration. By those who like to take the trouble, a day lantern (*i.e.*, one showing pictures even in a sunlit room) may quite easily be set up: though why such a thing is not listed in catalogues is a marvel. By others an ordinary lantern may be used—but this demands dark or a darkened room.

There is hardly any slide-work in the market worth showing to children (though scientific and geographical slides are admirable). Story-tellers should give them of their best in story and picture. Slides for hire or sale (in story work) are about forty years old; they are disgraceful. The slide-makers are not yet awake to the necessity of employing and paying artists. Therefore the story-teller must get his own artist and explain what is wanted. It is well to get slides made at home, if the pocket has to be considered. Very rarely do publishers give permission for much

of profuse illustration of particular stories that would tempt the story-teller to ask for permission or to pay a fee.

Occasionally the story-tellers may "make up" in dress or face. This is more certain of result when women are the story-tellers. A girl telling French, American, Japanese and Indian tales on one and the same evening may almost convince even an adult audience that four story-tellers have been upon the platform. This and the foregoing suggestion (*i.e.*, that good pictures should be shown) are comparatively new; there is a considerable opening for clever young women in this direction.

Pictures, if good (and these are the only pictures worth showing), should as a rule be shown when the story is over. To tell the story and to show the picture at once is to spoil story and picture; besides this, for children, it works the brain too hard. When comic stories, the literary character of which is not so important, are told, the pictures and the story may go *pari passu*. All loud clickings and conversations with the operator are to be avoided. Applause should never be checked.

A few sources are here added and a few names of books and particular tales.

Newspapers, magazines, and the conversation of friends are admirable sources. Foreign magazines cannot be neglected and old numbers of *S. Nicholas*, *Harper*, *Aunt Judy*, *the Strand*, and countless others may be found under *Per* (Periodicals) in the British Museum. Newspaper stories have usually to be worked into form; unnumbered gems pass into oblivion, skillfully prepared for the unwatchful story-teller by the lightning journalist.

In addition to the Grimms and Andersens and D'Aulnoy and Perrault and the Andrew Lang books which all know, the following contain, sometimes at long intervals, fine work:—J. Jacobs, "*Fairy Tales*" (4 vols., D. Nutt, 3s. 6d. each); Bain, "*Turkish and*

*Roumanian Tales*" (Lawrence and Bullen, 6s. each); Frank Stockton, "*The Floating Prince*" and "*Ting-a-ling*" tales; M. A. Owen, "*Old Rabbit the Voodoo*" (Fisher Unwin); J. C. Harris, "*Uncle Remus*" and its sequel; Croker's "*Irish Fairy Tales*"; W. B. Yeats, "*Fairy and Folk Tales*" (W. Scott, 1s. 6d.); E. S. Hartland, "*English Folk Tales*" (W. Scott, 1s. 6d.); Laurence Housman, 4 vols. of tales, exquisitely told (Kegan Paul and Trench, 3s. 6d. each); E. Nesbit's stories; W. D. Campbell, "*Beyond the Border*" (Constable); M. Peacock, "*Lincolnshire Tales*" (Simpkin Marshall); T. Vernalcken, "*In the Land of Marvels*" (Swan Sonnenschein); Mr. D. Nutt (see his catalogues) publishes Australian, Maori and other Folk Tales. A mine of stories is the great French collection, "*Littérature de Toutes les Nations*" (30 vols, and more, of which perhaps Bladé, Sebillot, Weckerlin, and Luzel compile the most useful—Paris, 7 fr. 50 c. each). The publications of the Folk Lore Society and the great folk-lorists such as Clodd and Clouston may, with caution, be consulted. Mrs. F. A. Steel and, of course, Rudyard Kipling supply some few stories, and the former in "*Tales from the Punjab*" gives scientific notes and a bibliography. The best bibliography I know is that added to E. S. Hartland's "*Science of Fairy Tales*," an invaluable book (W. Scott, 3s. 6d.).

For historical or semi-historical tales and for tales founded on great literary work, the following names may be consulted in a good catalogue:—A. J. Church, W. Wagner, Alice Pollard, C. Yonge; Mr. Arnold of Leeds has an admirable A. L. series (4d. each), and our debt to W. T. Stead ("*Penny Books for the Bairns*") is undoubted; Messrs. T. and E. Jack's new books are very popular; and the great old works, *Freissart*, the "*Mabinogion*" (Lady C. Guest), and North's "*Plutarch*" are full of material. Mrs. Clement Parsons has published for the Parents' Union an exhaustive list of children's books (6d.).

It must be understood that very often a book con-

tains one or at most two stories suitable for the teller, though on reading the whole of the book may be excellent.

*Story-telling for adults* requires of course some modification of the foregoing suggestions. The lantern is next to impossible; the mere tale of wonder is out of place, and comedy, unnecessary for children, is a *sine qua non*. On the whole (I can speak only of my own experiences) adult audiences are not so quiet as the children, and consequently do not give the story-teller so much chance to use his voice rightly. (I must except from this a working-man audience, the best in existence). It is well for the story-teller to remember that, in an adult audience he has fewer critics than in a child audience, but a greater number of cynics; and it is well if he can catch one or two understanding faces and tell his stories *at them*. The problem as regards audibility, room-acoustics, and voice management are the same in both cases and the candid friend is required here also. The rule in regard to self-effacement is, if possible, more important now; it is taken as a compliment by an adult and half-blasé audience (who have seen so many self-advertisements on platforms) to be assured that they are invited to attend to the story and not to the teller. Here too, one must not forget the rule, so often disregarded on the stage, that power, passion, comedy must be held in reserve; the audience must be invited to bring forth some of *their* power, passion and comedy, and where platform and audience meet the spark glows. There is no mistaking it; the room is different from the moment of that psychal spark and the story has won the day.

It is useful for the story-teller to pigeon-hole his stories and to label them, mentally, in some such way as this: narrative, literary, æsthetic, didactic and parabolic, horrific, humorous; it will be found that these heads cover nearly all that is worth telling. Subdivisions of course there may be: humorous stories

Stockton and E. V. Lucas to the anecdotes which each sex tells to its own little circle in the absence of the enemy and of the children.

For sources there may be recommended the heavier English magazines, Harper's, the monthly illustrated magazines, weekly papers like the "Westminster Gazette," an occasional "Truth" story; books full of anecdotes now and then contain a new story; "Reminiscences" and biographies of humorous divines, of judges, of H.M. Inspectors, of actors and actresses and showmen, and of all who work in the public eye must be consulted; and soldiers, travellers and seamen (when seamen like Pierre Loti and F. T. Bullen can be prevailed on to talk) supply fine work. Among many others may be recommended (always to be used with caution) W. W. Jacobs, Pett Ridge, Tighe Hopkins, Keighley Snowden, Eden Philpotts and the great R.L.S., all writers of the *conte*; Pierre Loti, François Coppée (the incomparable "Sunset" being easily first among his tales), Daudet, a master in all branches; Catulle Mendès ("Pour Lire au Couvent"); de Maupassant (in four stories at least); Julius Wolff ("Märchen"); and, if not too antiquated, Zschokke. The "Littératures de Toutes les Nations" and the Folk Lore publications are naturally valuable, and Pitre's "Sicilian Popular Traditions" (20 vols?) full of out-of-the-way lore; Lady Wilde and Mrs. Jameson deal with legends and charms; the horrific is found everywhere, though the palm for it must be given to the marvellous Lafcadio Hearn (*passim*) and to Marion Crawford ("The Upper Berth"), W. W. Jacobs ("The Monkey's Paw"), to W. H. Mallock ("The Ride of the Dead"), possibly to Q. ("The Haunted Dragoon") and to Lytton ("The Haunter and the Haunted"). H. A. Giles ("Strange Stories from a Chinese Studio") touches the comic-horrific. Parabolic literature has to be sought for up and down in all countries; and half the authorities mentioned in the preface to the last edition of Dean Thompson's "Parables" are scarcely from our point of

view, worth searching. Yet parabolic work is of immense importance and it is worth while to hunt through J. P. Richter, F. W. Bain, Fiona MacLeod, the Buddhist Jātakas and Hebrew Literature from the Talmud onward; for the searcher will be rewarded with occasional finds. The immortal Sadi, along with many other Easterns, is strong meat; but Robinson's "Persian Poets" (o.p.) has at least three stories in it. I know of no modern parabolic work except that of Miss L. Richards ("The Golden Windows"); Mr. Crosland is too obscure. Oriental literature, however, is didactic enough; translations of numerous works exist; and the Oriental mystic is the best tale-weaver in the world. C. Sorabji ("Between the Twilights") writes at least one admirable story, and Knowles' "Folk Tales of Kashmir" contains that remarkable double-barrelled tale "Metempsychosis." Lastly, to leave the parable, one cannot ever forget the inimitable work of Cable ("Old Creole Days," etc.), Miss Wilkins ("Understudies," "A New England Prophet," and many other books), Frank Stockton ("The Widow's Cruise," the "Tale of Negative Gravity," the "Story of Assisted Fate," the "Giant's Quilt" and a dozen more), and many other American writers.

One might write on for ever; and it is to be hoped that this roughly practical paper will produce long lists of suitable stories which, no doubt, our kindly Editor\* will publish. Only by co-operation can a good list of books and tales be made; and, if we really wish to further the revival of story-telling, we ought to be willing to publish our treasure-trove.

The experiences of a Story-telling Club-manager would be also welcome; and would help materially all those who wish to revive a refining and fascinating study.

I must apologise for the personal note in the paper; I can but give my own confession of faith.

\* The Editor will be glad to print in the Autumn Number any lists sent to him.

## THE TEACHING OF HYGIENE IN TRAINING COLLEGES.

By H. H. HULBERT, M.A.(Oxon.), M.R.C.S., L.R.C.P., etc.,

*Lecturer to London Day Training College, Graystoke Place Training College, etc., and to the University of London.*

The Board of Education has now definitely stated that they expect students-in-training to be instructed in hygiene so thoroughly that they shall possess a "health conscience." It behoves, then, all those who are interested in the practical details of the training as a whole, and more especially those who are engaged in teaching subjects which are included under the title of hygiene, to ponder upon the ways and means of complying with the regulations regarding this latter subject.

The main difficulty is, of course, the fact that the time-table is already overcharged and the mere mention of an extra subject makes a teaching staff shudder.

The syllabus of hygiene issued by the Board of Education is a very comprehensive one, in which, from the point of view of hygiene generally, one can scarcely urge that any item be omitted; but it is so long and comprehensive that when treated as an extra subject in the Training Colleges we fear the general result will be a mere smattering of the subject, quite incapable of producing the "health conscience" so much desired by the Board of Education. It seems to me that this "health conscience" can only be the outcome of a complete training, both theoretical and practical, in the main principles of hygiene.

School hygiene should be confined entirely to those principles which bear very decidedly and directly upon the relationship of teacher and taught in the school-room and the play-ground. From the Board of Education syllabus the following then might easily be eliminated:



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—The place of man in the animal kingdom in Lecture I.; the duties of the individual in relation to the health of the community in Lecture X.—these scarcely belong to school hygiene. First-aid, mentioned in Lecture XII., can only be taught effectively by a series of twelve lectures, and should be taught quite apart from school hygiene. The subjects mentioned in Lecture XII. belong to the medical inspector, not to the teacher, and the same may be said of the sections in Lecture IX. dealing with sites, soils, buildings, water-supply and sanitation.

The syllabus as a whole lies altogether outside the range of what is possible in a Training College. Further, it is not well-balanced and might be called a theoretical and not a practical syllabus. Indeed, it is only too evident to a practical teacher of the subject that it has been drawn up by authorities who had no experience in the actual handling of the subject in Training Colleges.

Perhaps it would be well to say here that I have had more than six years' experience in teaching school hygiene in the London Day Training College and other Training Colleges, and the practical outcome of my experience is that the subject of school hygiene can only be taught satisfactorily in Training Colleges when all the subjects which are in a way connected with it are correlated and placed in the hands of one lecturer, thus avoiding repetition and utilising the time of students and lecturers to the greatest advantage.

There is at present in the Training Colleges a great danger of antagonism in the teaching of these subjects. Take breathing as an example. A student is taught the principles of breathing by the teachers of voice production, singing, phonetics, and physical education; and after he has striven hard to breathe well, though stultified by the different opinions of these instructors, he is told at his medical inspection that his poorness of breathing is accountable for his lack of stamina. If, however, he is fortunate enough to possess a little knowledge of the construction of the body, he is allowed

to teach his class to do that which he is unable to do himself. The Board of Education in a foot-note under the heading of Singing, state "Students should also receive instruction in proper methods of breathing. This instruction would properly be included in the course of physical training."

Do the teachers of physical education understand the delicate and refined breath control that is necessary for voice, whether for singing or speaking?

The speaking voice is of the greatest value to teachers, and can only be made to endure the hard work of the school by a careful attention to its production. The breathing that is usually taught in physical training is harmful rather than helpful to its well-being, and this applies, too, to the singing voice. The shouting of the commands in drill for the sake of securing a quick, jerky response from the pupil is very harmful to the voice. The singing of too florid and too operatic musical numbers cannot be good for young voices, nor the striving to reach extreme notes, either high or low. The following scheme is one that I have used with slight modifications ever since I was made a lecturer at the London Day Training Colleges, and I am now using it also at the Graystoke Place Training College; and it has the advantage of having been tried practically, so that it is practical as well as theoretical. This scheme, too, will ensure for the teacher a controlled voice and a good physical sense which it will be observed are required by the Board of Education as well as the "health conscience"; for there are many more items which should be included under the heading of hygiene in other parts of the book of regulations for the Training of Teachers; these are so scattered about that it is more than difficult to find out exactly the real amount of scientific knowledge required by the Board of Education, for instance, speech and physical training appear under the heading "The Principles of Teaching" and general rules of voice-training under the heading "The Theory of Music."

## HYGIENE FOR TEACHERS.

A co-ordination syllabus of physical education, school hygiene, and voice production.

*Theory*.—Anatomy, 20 per cent.; physiology, 20 per cent.

*Practical*.—School hygiene, 20 per cent.

*Personal*.—Physical education, 20 per cent.; voice production, 20 per cent.

Examiner to allow 20 per cent. for each section.

No theoretical knowledge that has not a special practical utility to be required.

## THE SKELETON AND POSITION.

The erect position; the starting positions; school attitudes and school furniture.

*Anatomy*.—The skeleton and organs of locomotion.

*Physiology*.—Function of bone, cartilage, muscle and ligament.

*School Hygiene*.—School postures and remedies; school fittings; rickety bones.

*Physical Education*.—Spinal axis and curves; stability, leverage, movement, elasticity; general effects of exercise; position and balance exercises.

*Voice*.—Exercises for flexibility and position of body; vocal exercises; the "M" sound; the vocal apparatus; larynx, etc.; speech and song.

## CHEST AND BREATHING.

Breathing for health and voice; chemistry of life; ventilation, space, light, warmth.

*Anatomy*.—Thorax, muscles and organs.

*Physiology*.—Amoeba; chemistry of life (oxidation metabolism); functions of heart and lungs; gases of blood and air; animal warmth.

*School Hygiene*.—Ventilation; space, light, warmth; anaemia; consumption.

*Physical Education*.—Local effect of exercise; effect on heart and lungs; heat and combustion; speed and breathing; breathlessness; stiffness; movement of limbs.

*Voice*.—Breathing muscles (extrinsic and intrinsic); kinds of breathing; breath control; shape of chest; resonance; vocal exercises; vowel sounds; pronunciation; tone.

## ABDOMEN AND FOOD.

Digestion; food; stimulants; lacteals and lymphatics.

*Anatomy*.—Abdomen, muscles and organs; lymphatics.

*Physiology*.—Functions of digestive organs and lymphatics.

*School Hygiene*.—Food; milk, fat and nitrogenous food for the child; care of the teeth; dangers of stimulants—alcohol, tea; regular habits.

*Physical Education*.—Effect on digestion, lymphatics, excretion; repose—repair of animal machine; head and trunk movements.

*Voice*.—The abdominal press and its relationship to the articulatory apparatus; vocal exercises; consonant sounds; articulation.

## NERVES AND WORK.

Education; exercise; work; play; sleep; growth; fatigue, mental and physical.

*Anatomy*.—Nervous system.

*Physiology*.—Function of nervous system.

*School Hygiene*.—Growth and fatigue; sleep and repair; changes after work and rest; short lessons.

*Physical Education*.—Educational effects; co-ordination; automatism; fatigue regulates work; speed, endurance, strength, violence.

*Voice*.—Co-ordination; automatism; reading; vocal fatigue, cause and treatment.

## SPECIAL SENSES.

Care of eye, ear, nose, throat.

*Anatomy*.—Eye, ear, nose, throat.

*Physiology*.—Vision and accommodation; hearing and Eustachian tube; smell; taste; touch.

*School Hygiene*.—Eye strain and headache; spectacles, large work and distance of work; deafness, ear discharges and throat troubles; adenoids and nasal breathing.

*Physical Education*.—Training, habituation to work; progression; tables; commands; games as physical exercise.

*Voice*.—Reading and recitation; hygiene of throat.

## SKIN AND CLEANLINESS.

Dirt and disease; germs; lice; ringworm; infectious diseases of children.

*Anatomy.*—Skin, hair, nails.

*Physiology.*—Function of skin; vitality of cell *v.* germs; role of leucocytes; toxins; food poisoning; vaccination; infection through wounds.

*School Hygiene.*—Clothing; chill and chilbains; detection and prevention of disease; incubation period and period of infection.

*Physical Education: Voice.*—Hygiene effects; prevention of disease.

Each section forms a full syllabus for the work of one term, one hour a week being allowed for the subject. The ground can be successfully covered if the lecturer is fortunate enough to get such a hearty co-operation as is so ungrudgingly given by the Principals of the London Day and Gray-stoke Place Training Colleges.

## REVIEWS.

*The English Grammar Schools to 1660*, by Professor Foster Watson. (Cambridge University Press.)

The student of educational practice in reviewing the records of the past may gather some of his most valuable material from the text-books in common use in the schools at various periods of their history. These works have hitherto received but little attention and an exhaustive account of them has still to be written, but Professor Foster Watson's book, *The English Grammar Schools to 1660*, is a marked recognition of the importance of the study of first-hand sources of this description. The aim of the book—to quote from the preface—is “to present an account of the teaching in the English Grammar Schools from the time of the Invention of Printing up to 1660,” the year of the English Restoration, from which period Mr. Watson dates the rise of modern practices in the schools. The method adopted is a careful examination of the school books and statutes of numerous grammar schools, as well as of the writings of contemporary educationalists bearing upon this particular subject, and a valuable feature of the book is the introduction of passages from original sources in support of the author's conclusions on the varied questions with which he deals.

Work of a similar type has already been done by Mr. Leach in his well-known *English Schools at the Reformation*, but Mr. Watson's book is more definitely concerned with the evolution of curricula and the internal economy of the schools, and it supplies a long-felt want in its constant appeal to the evidence of the text-book, a matter of subordinate importance in the afore-mentioned work.

The unifying principle running through the great diversity of subject that is presented to the reader in the book under consideration is the author's unmistakable conviction that the development of the grammar schools cannot be satisfactorily studied apart from the history of their times, and this idea he works out when he traces the story of the connection between the school and the church and follows up the evolution of the curriculum as the Renaissance movement spread in England, as Protestantism grew and Puritanism took its rise.

The opening chapters deal with the question of the connection of the grammar schools with the church. From Mr. Leach's *English Schools at the Reformation* may be obtained a clear idea of the various types of schools and their relations to the bodies that respectively controlled them. Mr. Watson



shows that the tie between the church and educational institutions both before and after the Reformation was a very close one, and he claims that "complete severance from ecclesiastical oversight and support of some kind from the church was only slowly effected," and that in the period 1550 to 1560 "no school was outside of ecclesiastical influence." The place of the bible, the catechism and the primers and other religious school books is clearly explained, data being taken from statutes, from which sources the student may also learn what religious qualifications were demanded of the masters and what practices and observances were from time to time enjoined in the schools.

In dealing with curriculum the author takes the period of the Northern Renaissance as a dividing line in the history of the schools and draws a contrast between educational practices before and after that time. The position of elementary instruction is briefly explained, and passages are quoted from school statutes to show what was the attitude of the grammar schools towards these subjects. The account of the old A B C books and the Horn-books is interesting, while the Song-Schools and the teaching of music receive considerable attention. The main part of the book, however, is devoted to the consideration of the relative positions of the subjects of the Trivium and Quadrivium at different periods, and attention is drawn to the differentiation of the subject of study as time advanced and to the gradual emergence of "Grammar" as the first in importance. A number of chapters are devoted to an examination of the content of this term in teaching and a full description is given of the "plethora of grammars" that made their appearance before the authorized grammar book of royal proclamation was finally established in the schools. The history of Lily's Latin Grammar is frequently a matter of confusion, and a chapter is given to an explanation of how this famous book developed; it is interesting to note that its original form was a matter of dispute even at the time of its inception, as is evident from two conflicting letters quoted by Mr. Watson. That the authorized Latin grammar was a compilation is set forth in a letter by a certain Thomas Hayne, a master of Merchant Taylors' School, who was himself responsible for one of the numerous grammar books of the period. As the subject of grammar began to grow in importance, one of the burning questions of the day was how to adjust the differences between the pedantic schoolmaster whose stock-in-trade was grammar (in its narrowest meaning) and the teacher who, filled with the more truly humanist spirit, urged the claims of the classical writers themselves. In the story of the "Grammar War," methods of the class-room

are to the fore, and the reader is confronted with all the problems of the theme, the declamation and the verses of the old classical education as it developed in the grammar schools.

The subject of the Colloquies is an instructive one; it is easy to overlook the fact that in the middle ages and later, Latin was really a subject of practical use, and the modern teacher who is an advocate of conversational methods in Latin, may find many suggestions in these early school books, which were intended to give a training in the art of speaking the language. It is in this connection, and also in dealing with the subject of the school-play, that Mr. Watson argues that the grammar-school curriculum (with the notable exception of music) was in close touch with the national life, and that it gave the kind of education needed at that particular time, and this he urges despite the many protests of educational thinkers who decry the bad methods of teaching and the narrow outlook of the schools.

It is to be regretted that this idea is not more fully worked out in the concluding chapter, which is a recapitulation of the main tendencies in the history of the development of the grammar schools. It would, moreover, be an advantage to the reader to find in this chapter a brief summary of the chief features in the evolution of classical teaching as presented at considerable length in the preceding chapters.

It is unfortunate that in a few instances a slight awkwardness of expression detracts from the attention of the reader. The following passages may be quoted:—"It is a significant fact that two of the names suggested as the author of this catechism wrote longer catechisms." "An Oxford well-known instance." "Pupils having acquired a sound knowledge of grammar, and having had, and still continuing, constant exercise in translation."

The book is both suggestive and instructive, and will be read with pleasure by all who are interested in the early history of secondary schools. S. E. S. R.

*Principles of Logic* by George Hayward Joyce, S.J., M.A.,  
Professor of Logic, St. Mary's Hall, Stonyhurst.  
(London, Longmans, Green & Co.)

Professor Joyce is to be congratulated on having produced an excellent introductory text-book on Logic. Its most characteristic features are clearness and brevity of expression, combined in a very unusual degree and with unusual success. The book is, of course, written from the neo-scholastic point of view; that is, Professor Joyce adds to the traditional scholastic exposition of judgments, concepts, syllogisms, and fallacies, a treatment of what is usually known as Induction. This is taken in two parts, the logical

doctrine of induction in chapter xiv., and the application of this to scientific method in chapters xviii.-xxv. This separation is characteristic. Logic has for its content "the conceptual representation of the real order," and "the method of science" deals with the real order itself. But, after all, is not the aim of the method of science to build up a conceptual representation of the real order? It really seems only a matter of terms whether the whole method shall be included under "induction" or not. It is, at any rate, recognized as falling within the province of logic when it is called "applied logic."

One of Professor Joyce's doctrines seems to me difficult to reconcile with his fundamental conception of logic. He holds that categorical propositions do not imply the existence of their subjects (p. 113). If this be so, then, as propositions are the material with which logic deals, how can we be sure that there is any real order behind the conceptual construction? Mr. Joyce reaches his position by a limitation which seems especially strange in a scholastic. "Now in the first place it is evident that if a thing possesses *actual existence* at all, it exists in this physical universe." And this means, apparently, that it is open to sense perception. On p. 142 we are told "In the real order . . . the singular alone exists. . . . Our intellect shows us universal natures . . . though *as universal* they exist in our mind alone." But do they "actually exist" in our mind? If so, surely it cannot be said that actual existence is necessarily physical. Mr. Joyce opposes strongly the formal conceptualist doctrine which would sever thought from reality, yet it seems to me that his doctrine of the non-existential import of propositions can be made consistent only with such a doctrine.

The doctrine that "things in the real order are all singular" (p. 142), that consequently "nature is . . . an organization formed of things, which are complete in themselves, though related one to the other" is stated by Mr. Joyce to be the crucial difference between his school of thought and those who hold that "nature is an organism—a unit—of which individual things are but parts" (pp. 338-9). And yet it may be doubted if these are more than opposite ways of approaching the truth. If the "things" are "related," then, so far, they are not "complete in themselves," and they with their relations do form a whole; whether we call this whole an "organisation" or an "organism" matters little. After all, each term is merely figurative. And surely it cannot be denied that the explanations of science have, hitherto at any rate, been "provisional," directly we pass from the smaller matters of fact to the greater matters of explanation. Nor do I know in what historical sense Mr. Joyce can say of science that "every

step forward is a permanent acquisition of truth" (p. 339). Surely the path of science is strewn with the wrecks of discarded explanations.

Professor Joyce, I am sure, desires to be fair to those who disagree with him, but in my own case he has not altogether succeeded. The quotation given on p. 120, torn as it is from its context, gives quite a wrong impression, as will be evident to anyone who will read the whole section of my *Manual* from which it is abstracted. Few, I think, would gather from what Mr. Joyce says that the section advances substantially the same doctrine as his own, that it carefully distinguishes between *causa essendi* and *causa cognoscendi*, and that a few lines after the end of the extract quoted I say "Cause is confined to the explanation of events, whilst Ground refers to the foundation of all knowledge." And had Mr. Joyce read the half dozen intervening lines he would, I think, have seen that he is mistaken in identifying me with those who reduce all reality to thought. I could quite unreservedly accept Mr. Joyce's statement of the matter of logic, and I can but regret that my exposition of my views has not been clear enough to prevent so acute a thinker from misunderstanding them. I have always tried to express the view that logic deals with "reality as known, *i.e.*, as interpreted by thought" (*Manual* § 9). No doubt I hold "that in experience we find our ultimate *datum*; in other words, that in experience alone we are brought into contact with reality" (*Manual* § 141, vii.). But it never occurred to me that this would ever be taken to mean that thought constitutes the world in any other sense than that the thought of each one of us constitutes it as an object of knowledge to himself. These constructions differ in individuals, a point Dr. Bosanquet has well illustrated by likening them to "drawings in perspective of the same building from different points of view" (*Ess. of Log.*, p. 18). According to Professor Joyce's interpretation of Dr. Bosanquet's doctrine it is difficult to see what is "the same building" of which each person's construction is a representation.

J.W.

*The Teaching of English*, by H. C. Wyld. (London, John Murray.)

*The Sounds of English*, by Henry Sweet. (Oxford Clarendon Press.)

*The Sounds of the French Language*, by Dr. Passy. (Oxford Clarendon Press.)

*Phonetic Transcriptions of English Prose*, by Daniel Jones. (Oxford Clarendon Press.)

We are very hard driven nowadays by men whom you and I call specialists, but whom the gods, may be, call cranks.

One has to keep an eye on the sweet reasonableness of things and not forget the saving grace of humour. Here we have four admirable books written by men who can speak with authority on a subject that has been unusually fertile in producing quacks and their nostrums. There is no longer, therefore, any justification for misconceptions as to the elements of phonetics, and for this we owe our gratitude to the writers. The Clarendon Press has done wisely to persuade Dr. Sweet to do for English what M. Passy many years ago did for French sounds. They have done well, too, to get Messrs. Jones and Savory to translate M. Passy's book into English. Dr. Sweet's handbook, supplemented by M. Passy's, with its admirable diagrams and practical illustrations, should prove of the greatest assistance to all who want reliable help.

People vex themselves needlessly about the choice of phonetic symbols. Those used by Sweet—and Professor Wyld's differ from them very little—are very simple, and, for the most part, they coincide with those used by the International Phonetic Association. Teachers who are already used to the latter symbols in their application to French and German sounds will find in Mr. Jones' *Transcriptions of English Prose* a very complete set of illustrations. The other books also contain transcribed passages.

Professor Wyld is not content with an exposition of the elements of phonetics; he boldly, and, we think, admirably sets out to show how a training in these elements may be used to give to students in training the power of identifying and analysing the sounds they utter and the sounds they hear. He believes that the power is essential to any marked success in dealing with the social and local dialectal mispronunciations of teachers. The fact is that it comes as a shock to the ordinary man to find that he does not know with any degree of accuracy what sounds he is uttering or wherein they differ from those used by others.

Professor Wyld also deals with two other important problems: (1) that of the economy and use of the voice and (2) the problem of taste and expression in reading. What he has to say on the former of these questions is to the point, but it is too slight to be of much use. Indeed it is a matter for the voice specialist, provided that that person keeps off the domain of taste and expression. On the latter Professor Wyld says much that is excellent, much indeed that has seldom been said better, and people who are not in love with phonetic methods will find much with which they are in hearty agreement in his chapter on "Taste and Expression."

The writer had the privilege on several occasions of listening to readings by the late Canon Ainger. His exquisite taste, clear, gentle voice and insinuating power of sympathy were

a revelation of beauty of mind and sincerity of feeling. We rejoice to find that Professor Wyld has this type of excellence before him and that he dislikes, as Canon Ainger did, the artifices and eccentricities of the elocutionist. Tragedians have long discarded the mask; would that they might be persuaded to drop their masked utterance!

A. W. R.

*The Writing of English*, by P. J. Hartog (Oxford Clarendon Press.)

When discussions reach the nebulous stage and each speaker adds to the general confusion by exploiting his own particular irrelevance, we welcome the man who steps out, shuts us all up and tells us just where we stand. This is what Mr. Hartog has done for the subject that has vexed educational conferences for years.

Mr. Hartog's book has had a great reception, and chiefly, we think, because it clears the ground and gives us a fresh start on a road that makes for a definite goal. It is one of those books that commands success because it tells the best people what they think they have been on the point of arriving at themselves.

The plan of the book may be summed up in Mr. Hartog's words as follows:—

1. The English boy cannot write English.
2. The English boy is not taught to write English.
3. The French boy can write French.
4. The French boy can write French because he is taught how to write.
5. Historical reasons for the foregoing facts.
6. How the French boy is taught to write.
7. How the English boy may be taught to write.

The chapters on the "History of the Teaching of the Mother Tongue in France," and on the "Methods of Teaching Composition used in French Schools" are altogether admirable, but it is far from true to imagine that Mr. Hartog advocates a slavish adoption of French methods in England. He gives an interesting account of experimental work done by himself in Manchester both with children and working men, and we believe that this record is one of the most valuable things in the book. There are several examples of exercises worked both in France and England, and Mr. Hartog has spared himself no trouble in showing how his ideas may take practical form.

A. W. R.



*The Teaching of Reading in Training Colleges*, by Professor H. C. Wyld. (London, John Murray.)

From the seven chapters of this book we choose chapters six and seven for special comment; they deal with the management of the voice and in the expression in reading. Professor Wyld frankly says that resonance is a mystery, and he recommends careful breathing and the use of phonograph records. In his chapter on expression he admits that he has come to the hardest part of the subject. His practical suggestions in this chapter are these: that teachers should read more widely and should study the intonations and stresses of ordinary conversational English. In this last suggestion he hits on one of the best and the most unused methods for improving reading. But he does not seem to see that, by implication, he admits that children and young adults have all the material ready to their hand. Had the two chapters been run into one with this text, "Take conversational work and use that as your basis," a very valuable addition to our meagre books on reading would have been made. However, there are at least twenty other suggestions which may be made to a teacher of the subject, apart from exhortations, about breathing which generally mean nothing. There are tricks for improving resonance, for ensuring audibility, and distinctness; and there are rules (quite apart from any training in taste) the observance of which brings home to the listener the meaning of a passage.

The remainder of the book is a plea for the study of phonetics. Teachers on the whole will continue to look on phonetics (except as an aid to French or German) in the light of a luxury; and Professor Wyld would denounce anyone who would welcome phonetics for defectives only. Incidentally the author lays stress on the phonetic work done in Scotland: it is interesting to note that Dr. Sweet in his preface to "Sounds of English" makes the following remark:—"I have to express the hope that our educational authorities will be cautious in introducing phonetics and appointing teachers of it—and that they will profit by the experience of Scotland."

A. B.

*A Cycle of Nature Study*, by M. M. Penstone. (London, Natural Society's Depository.)

*A Plant Book for Schools*, by Dr. Otto V. Darbishire. (London, A. and C. Black.)

It was one thing to ask for the introduction of Nature Study into schools; it was another matter to find teachers prepared for the instruction and suitable books that would serve as suggestive guides. The result was much unnatural

nature teaching, teaching that proved to be dull and ineffective. Some, notably Professor Miall, indicated the way through first-hand observation and love of fresh air and nature, but most of the literature, with carefully prepared blackboard diagrams and disconnected lessons, and the playing with coloured crayons, had a mischievous effect. We are finding the right way slowly and the two books under notice are indications of the change.

Miss Penstone as a practical teacher rightly declines to consider "scraps of nature" apart from the general setting: the plants, animals, and objects of nature are not specimens in the classroom but objects *in situ*, and, as one might expect, they are considered in their season. The fifty-two chapters are not to be begun at the beginning but at the chapter that agrees with the period of the year when lessons begin. Written for children under twelve years of age, it is a wise, inspiring and suggestive book, the breath of the fresh air is in the pages. Teachers who love nature will have their sympathies intensified by this work, and will have a guide that will tend to make the lessons real; they will be uncomfortable and feel a sense of failure unless the result is to get the young folk into the open.

"Come into the light of things:

And let Nature be your teaching."

We commend the book as an aid to the teacher's knowledge, not as a substitute for a teacher's own observations; in this Miss Penstone will agree.

Dr. Darbishire sets himself another task; he wishes to further systematize the general knowledge gained, he would be happy, we imagine, if those beginning the plan of studies he suggests had had the advantage of a general course such as Miss Penstone outlines. He insists upon the real object (as all good teachers will), its place in garden, hedge-row and field; then he skilfully outlines a scheme that develops systematic observations, and describes excellent methods for plant observation through the four seasons of the year. Classroom work comes rightly after outdoor work. The plant "in Nature," not the lonely, depressing, dying specimen that wearies the class from its vantage point of the teacher's desk, is his subject. The illustrations are excellent; but these are not to be copied, nor are they to replace personal observation; and, used as the author suggests, they will lead children to the "light of things."

We strongly advise all school teachers to obtain, read and utilize these admirable books. Happy would be the children of the nation if they could follow, and if they could be instructed rationally in the spirit and the subject-matter of these books.

K. N. T.



*Physical Education and Hygiene*, by W. P. Welpton.  
(London, University Tutorial Series.)

*School Hygiene and Laws of Health*, by Dr. C. Porter.  
(London, Longmans, Green & Co.)

*Manual of School Hygiene*, by Dr. E. W. Hope and Dr.  
E. A. Browne. (London, Cambridge University  
Press.)

The publication of these books is one of the many indications of the recognition of the value of exercise and health in the training of teachers. The address of Sir Lauder Brunton upon "Training Colleges and National Health" at the annual meeting of the Association in December, 1907, and the paper which Lieutenant Grenfell read at the recent annual meeting show that those responsible for the conduct of colleges are alive to the importance of the subject. The methods that must be followed to suitably impress and instruct students will only be real after many experiments; the danger is that any one system should receive official sanction. The difficulty is to decide between the values of knowledge and the inculcation and practice of suitable habits. The presidents of each of the years mentioned had this problem before them in their annual addresses. In the meantime everyone must be grateful for the views set forth in the books under notice by those who have given special attention to the subject.

Mr. Welpton's book, which has a most interesting and characteristic introduction consisting of a resumé of the history of physical education by Professor Welton, deals with the relation of school hygiene to the general education of the child and more particularly with its influence on physical education. Some chapters, as the author realises, are rather too technical for beginners and should be left over until the remainder of the book has been read. Emphasis throughout is laid on the importance of the *practice* of hygiene by the children, and surely this is the essential point of the whole matter, for no amount of teaching can produce that "health conscience" without which all school hygiene must prove comparatively ineffective.

Dr. Porter's work is based upon a series of lectures given by the author to the teachers acting under the Sheffield Education Committee and to the students of the Sheffield Training College. In it, each system of the body is treated in turn, the structure and functions of the organs composing it, how they are affected by school conditions and disease, and how they might be protected, being considered.

In addition, the book deals with the school building, and a special chapter has been added on "Medical Inspection of Schools and School Children."

The physiological treatment of the subject is very complete, being rendered especially helpful by the valuable hints given in each section on the bearing of the structure and functions of the organs on school life and work.

The manual of Dr. Hope and Dr. Browne is one of the Cambridge series for schools and training colleges, provides a very suitable introduction to the study of school hygiene. There are two main sections in the book: the first, dealing with the external conditions affecting the health of children in schools, written by E. W. Hope; the second, dealing with the management of the child as a growing and living creature, contributed by E. A. Browne. The authors insist on the importance of child study at first hand by the student and teacher, rather than on a theoretical knowledge of physiology.

Space does not permit of a suitable appreciative account of these three books. Each treats of school hygiene from a special standpoint and thus each merits a place in the students' or teachers' library. Each book contains frequent diagrams and illustrations, which serve to render the subject more real and interesting.

It would be helpful were a complete bibliography to be inserted into each book so as to give the student an opportunity of pursuing his studies in any branch of the subjects that might prove of special interest to him.

J. F. M.

*Pestalozzi: An Account of his Life and Work*, by H. Holman.  
(London, Longmans, Green & Co.)

There is so much to be done in the way of making Pestalozzi better known in England, that the appearance of a new book upon the subject brings with it considerable expectations. The writer of the book under review tells us that he has made every effort "to set forth as clearly as possible what Pestalozzi thought, wrote and did," and that the "greatest success" of his volume is to lie in the fact "that it gives the fullest opportunity and greatest stimulus to the readers to do their own thinking and formulate their own conclusions." These stimulating prefatory words could not fail to fire the interest with which a past student of Pestalozzi's work like myself took up the book. Having read it and thought about it, I must plead guilty to some disappointing conclusions. Clearly my expectations were pitched too high and it is only fair to say that the author disavows any attempt to show Pestalozzi's standpoint in relation to the history of thought. If we want to know anything of his intellectual ancestry, we are told in a paragraph at the end of the book to compare his philosophical ideas with those of "Aristotle, Descartes,

Hobbes, Locke, Leibniz and Kant"! Yet, I imagine the book is intended to be something more than a popular account of Pestalozzi, such as an uncritical enthusiast would write. Regarding it therefore as a serious contribution to the study of its subject, we have a right, in these days of accurate scholarship, to expect the author to know what he is writing about at first hand, to be familiar with recent critical work relating to it, and to do all in his power to encourage the student to go to original sources.

As to the first point, there is a good deal of evidence that the book is not based upon a direct acquaintance with Pestalozzi's work, a fact which would matter less if pains had been taken to ensure the accuracy of the translations employed and to make certain that, in interpreting the translation, ideas foreign to the original were not introduced. The paraphrase of the fifth letter in "How Gertrude Teaches her Children" on pp. 187-8 contains good examples of error in both these directions. Apart from the use of the word "idea" for the concrete terms of the original, thereby departing from the point of view which Pestalozzi is urging upon his reader, we have the confusion that comes from the irregular use of "clear" for the *deutlich* of the text. Throughout the letters Pestalozzi maintains a distinction between the words *Deutlichkeit*, *Klarheit* and *Bestimmtheit*. It matters little which particular English words we use in rendering them, provided that we are consistent. It will only make his meaning unintelligible if we use the word "clear" sometimes for *deutlich* and sometimes for *klar*. Further, a mistranslation, such as is not uncommon in the current English version of the Gessner Letters, is repeated and the thread of the argument is destroyed. Compare, for example, the version for which Mr. Holman makes himself responsible, with the original:

The second source is the power of sense-impression which is intimately interwoven with the sensibility of our nature.	Die zweite Quelle ist die mit diesen Anschauungsvermögen allgemein verwobene Sinnlichkeit meiner Natur.
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That which is in the English here called the "second source" has been already discussed by Pestalozzi as the first source. The first source of definite ideas, the *Anschauungsvermögen*, is the passive recipient side of the human mind and the second source is the responsive sensitive side. The translator has not caught this distinction.

Again, the paraphrase of the same letter is brought to a close by the sentence, "Growth is adaptation to environment." This is part of an outline of educational doctrine drawn from "How Gertrude Teaches." Of course Pestalozzi

never wrote or meant anything of the kind; the idea of adaptation to environment was, I believe, quite unknown to Pestalozzi. The paragraph which is summarised in this way has been quite misunderstood by the author. It formulates what has been called "The Law of Physical Nearness," an idea which underlies much of Pestalozzi's work—the Mother's Book for example—and which actually led him to reject History as a school subject.

It is either careless writing or a similar want of first hand knowledge of the subject that leads the author to put persons and projects into the first volume of Leonard and Gertrude that do not appear until the second and third. And though it is a small matter, the danger of writing at second hand is well illustrated by the closing sentence of the biographical chapters. "Nearly twenty years after his death, in a niche in the church wall above his grave, was placed a bust of him." Now the monument is not in a niche, it is not on the church wall and the bust is a basrelief on a circular plaque.

As to the second point, one had hoped that a new English writer on Pestalozzi would have made use of the most recent critical interpretations, but even Pestalozzian bibliography is a sealed book to him. The "Swansong" is assigned to the year 1826 (the date of its publication) and is said to be "full of sadness and despondency" "as would be expected." But two-thirds of the book has no note of sadness in it, for it was written at least thirteen years before it was published and was probably intended as a sort of complement to the Lenzburg Address, from which, by the way, the author quotes two or three times without telling us when or under what circumstances it was written. Indeed, Pestalozzi's literary work at Yverdon is entirely ignored.

And thirdly, if students are to be encouraged to think for themselves, ought they not to be helped by precise references? It is annoying to have long quotations vaguely referred to Raumer, Vulliemin, De Guimps, etc. But it is much worse to find that the citations from Pestalozzi himself are never precisely located. This is surely inexcusable.

Nevertheless there is abundant enthusiasm in the book. As a popular introduction to its subject, much may perhaps be forgiven in virtue of the writer's obvious sincerity. The book is well printed and contains several interesting illustrations. Mr. Holman had the advantage of access to Dr. Mayo's papers and one welcomes very heartily the account he has given of the connection of Pestalozzi with that family. Of course, his relations with England began earlier than the time when Dr. Mayo went over to Yverdon. It would have been interesting to learn something of the results of the appeal which he made to the British public in

1818, one of Pestalozzi's most sanguine years. An autograph letter in my possession, addressed to a daughter of J. P. Greaves, suggests that it was not altogether unsuccessful. At least he writes from Yverdun in 1823 asking Mrs. Gardiner to help him with another scheme for raising money.  
J. A. G.

*The Kindergarten in American Education*, by Nina C. Vandewalker. (New York: The Macmillan Company.)

Mr. Henry W. Blake, Miss Susan Blow, and Principal Salmon have given brief accounts of the American kindergarten in works dealing with larger subjects, and there are probably many other brief accounts buried in old magazines, but Miss Vandewalker is, we believe, the first to write the history in detail. She has shown great patience and industry in the collection of facts and considerable skill in the arrangement of them. By following separately each line of development she has kept her narrative free from confusion and made reference easy. We heartily commend her book to everyone interested in the spread of Froebel's ideas.

The earliest English kindergarten was established by Mrs. Bertha Ronge in London in 1854, and the earliest American by her sister, Mrs. Carl Schurz, at Watertown, Wis., in 1855. For about fifteen years the new system made very little progress in either country. Now America has over 3,300 public and about 1,500 private kindergartens with over 330,000 pupils while we have no public and probably only a few hundred private kindergartens. It might therefore be inferred that after 1870 the movement became rapid in America and almost ceased with us.

But the inference would be false. The difference arises from a difference not in the appreciation of new ideas but in the circumstances of their application. America has no infant schools and children are as a rule admitted to the primary school too old for a method of training which begins with the baby. If, therefore, the kindergarten is established there it must be a separate institution. But when the ideas of Froebel first reached England, the country already had a complete system of infant schools, admitting children at the age of three and keeping them till they were seven. Several courses were therefore open. The infant school might have been transformed into a kindergarten; it might have been divided into two parts, the lower a kindergarten; or something of the spirit and methods of Froebel might have been introduced into it. The last, being most consonant to our national instincts, was the course adopted. It gave us better infant schools, but it prevented our having good kindergartens as a link in our chain of state-aided schools.

The difference in origin accounts for the difference in development. In America the kindergarten is a complete and independent entity, self-contained, and living for itself alone. In England (except for the few private establishments) it lives as a part of something else. The infant teacher employs the gifts and games and songs with her younger classes as an easy and pleasant introduction to the reading and writing and arithmetic of the older; the kindergarten employs them as the best means for exercising the self-activity of her little flock. The one is thinking of her school, the other of her children; the one is likely to attach most importance to the methods of Froebel, the other to his principles.  
D. S.

*Armstrong College, Newcastle-upon-Tyne. Department of Education. Papers. Second Series.*

The "papers" furnish us with an interesting account of an experiment, a Training College Camp. For some years it has been the custom to conduct excursions to country districts in order that students may become acquainted with the methods and curricula of rural schools; satisfactory as the results of these expeditions have been, it was still felt by the Principal and his colleagues that something more was needed to guide students to right relations with their pupils, and to bring teacher and taught into closer contact with Nature than is possible in schools. It was suggested that a camp for boys, managed by students, might supply the need. Staff and students agree that the surmise was correct.

The way for the enterprise was prepared by permission from the Board of Education to substitute attendance in camp for attendance at school, and by the recognition of the students' work in camp as part of the regular school practice; the teachers and parents of the boys were apprised by means of circulars describing the plan, and giving the necessary directions as to outfit, expenses, etc.

One hundred and six boys drawn from 30 schools, aged from 12 to 16, went into camp. Six or seven shared a tent, two or more tents formed a squad. At 9:15 each morning the squads moved out of camp for lessons. The curriculum comprised history, geography, plane tabling, surveying, bird, plant and insect life, music, sketching, weather observation, knotting and first aid. The unifying idea was Northumbria, in which Warkworth, the scene of the camp, lies. Physical exercise and games were not neglected. Service was conducted in camp twice daily, and arrangements were made for attendance at Divine Worship on Sunday.

Twenty-four students availed themselves of the oppor-

tunity. Their duties were arduous, comprising teaching, orderly duties including night watches, and the superintendence of games. Each tent had its student, consequently a squad was accompanied by more than one teacher. No set lessons were given, but teachers joined with pupils in the search for knowledge, arrangements being made, if possible, that one of the teachers present should have special knowledge of the subject under consideration. In the afternoon the boys made notes of the work done in the morning, the students superintending them in the marquee, giving assistance when necessary, but encouraging original work. The students themselves received less supervision than under ordinary circumstances, but this was found to be no disadvantage as freedom encouraged a sense of responsibility; real help was afforded by the friendly criticism of one another which took place in the after supper hour.

The results of the camp on the boys were most satisfactory, as also the results on the students, with which the promoters of the scheme were most concerned. Students and staff assert that the experience was of unique value, they learned more about boys in that fortnight than ever before: the teaching practice was of more value: without the conventionalities of the class room, without text books, they were thrown on their own resources and forced to original work: moreover, many of them learned the real meaning of an *active* class, and how many are the limitations of a merely bookish learning. The Training College Staff found their knowledge of the capacities of their students increased.

Interesting suggestions are forthcoming. The ordinary classification by age was impossible, yet it was found that variation in the quality of the work done did not depend upon age or the ordinary school classification, suggesting greater latitude in classification when attacking "new knowledge stuff." No time was available for revision, yet no evil results accrued. The absence of text books was beneficial. Some lessons preparatory for camp were certainly required, as also some connection between work done in camp and in school.

Those of us who are confronted with the manifold difficulties in the efficient training of students are indeed indebted to the Newcastle Training College for this candid account. There is need of pioneer work such as this, and the demonstration of the possibility and efficacy of this method of bringing students into sympathetic intercourse with their pupils is no mean contribution to the solution of our problem.

K. L. J.

*Longman's Practical Arithmetic*, Pupils' Series, Books I.-VII., Teachers' Series, Books I.-VII., by W. Knowles, B.A., B.Sc., and H. E. Howard.

In addition to the co-ordination of arithmetic and geometry the main feature of these books is that they aim at developing intelligence rather than skill in computing. Questions in the form of problems are given from the very first and all processes are introduced early with small numbers.

This leads sometimes to results no doubt rather startling to old fashioned framers of curricula. For example, this question " $\frac{3}{4}$  of  $40 + \frac{1}{4}$  of  $44 = x$ . What number does  $x$  stand for?" precedes the following: "Multiply 68 by 4." A decade ago the second question would undoubtedly have come before the first. But is it not, after all, the harder of the two?

As will be seen from these examples, easy fractions are introduced very early. As soon as the child has mastered the properties of the numbers 1 to 10 and can add and subtract, multiply and divide within these limits and can also answer easy questions on 10, 20 . . . 90, 100, he is given a large number of *practical* exercises on halves, quarters and thirds in which he manipulates paper squares, wooden splints, squared drawing paper. This leads up to questions such as "A rope is 9 yards long. If I cut off  $\frac{1}{3}$  of it how many thirds are left? How many yards are left?"

Multiplication from its first introduction is commenced by the tens digits, in preparation for contracted methods later.

Another commendable hint is that "Children should be accustomed to the drawing of freehand sketches in which the measurements are inserted."

Easy decimals are introduced in Book III. at about 9 or 10 years old and early indications given of a possible decimalisation of our British coinage with £1 and one florin as units.

Schemes are suggested for using the books in schools differing in staff and equipment. In a well-staffed town boys' school the number of the book corresponds with the standard, Book III. for Standard III. and so on.

Throughout the teachers' series great attention to detail is shown. For example, in speaking of a drawing "the figure should be lettered, *neat printed block capitals being used*." The frequent full notes of typical lessons are also very valuable. Indeed the only danger which would seem to attend the introduction of these books is that the teacher, finding a careful and detailed course of instruction laid down for him in the Teachers' Series and all the necessary examples in the Pupils' Series, may cease to prepare any lessons and depend wholly on these primers.

G. H. T.



## Reviews of

*The Administration of Public Education in the United States*, by S. T. Dutton and D. Snedden. (London: Macmillan & Company.)

*Puerorum Liber Aureus*, by T. S. Foster. (London: A. & C. Black.)

*Principles of Secondary Education* (Vols. 1 and 2), by Prof. De Garmo.

*Special Method in Arithmetic*, by C. A. McMurry.

*A Modern Arithmetic*, by H. S. Jones.

*Practical Arithmetic and Mensuration*, by F. Castle.

*A New Algebra*, by S. Barnard and J. M. Child.

(The above five books published by Macmillan & Co.)

are held over and will appear in the Autumn number.

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## TRAINING COLLEGE RECORD.

ALL COMMUNICATIONS SHOULD BE SENT TO PROFESSOR WRIGHT,  
ARMSTRONG COLLEGE, NEWCASTLE-UPON-TYNE.

## Training College Association.

MINUTES OF COMMITTEE MEETING held at 19, Great Peter Street, Westminster, on March 12th, 1909.

The following members signed the Attendance Roll :  
Rev. R. Hudson (President), Miss M. E. Bishop (Vice-President), Miss C. M. Austin, Mrs. Bannister, Mr. A. Barriball, Rev. J. D. Best, Miss M. Birch, Rev. S. Blofeld, Mr. A. P. Braddock, Mr. A. A. Cock, Mr. H. S. Cooke, Mr. J. S. Davis, Rev. H. Wesley Dennis, Miss A. F. Dodd, Mr. D. R. Harris, Mr. J. W. Jarvis, Rev. H. A. Lester, Miss M. Liberty, Miss C. G. Luard, Rev. Canon Martin, Rev. I. A. Smith, Miss H. Brown Smith, Miss M. Howes Smith, Miss K. T. Stephenson, Rev. D. J. Thomas, Rev. Dr. Workman, Miss S. Young, and the Secretary.

1.—The Minutes of the last meeting (in February) were confirmed.

2.—Mr. D. Salmon, Principal of Swansea College (one of the Vice-Presidents for 1908), was elected President for 1909.

3.—It was decided to hold the Annual Meeting on Friday, December 17th, 1909.

4.—The President reported the correspondence with the Board of Education (arising out of the last meeting), and also read the following Memorandum presented by the Deputation of the Association received by Mr. Selby-Bigge (for Mr. Runciman) the day before :—

The following resolution was adopted at the Annual Conference of the Training College Association on Friday, December 18th, 1908 :—

That the attention of the Board of Education be called to the fact that a large number of the Students in Training Colleges, who completed their training in July

last, are still without appointments, and that, in the prospect of a further large increase in the number of Training Colleges by the Education Authorities, this condition is likely to be considerably intensified, unless the Board of Education, or the Education Authorities, devise means to secure a larger proportion of trained teachers in the Schools; and that the Board of Education be asked to receive a deputation on the subject.

In support of the above:

1. The Association draws attention to the printed statement attached, showing the number of students from 61 Colleges, who completed their training in July, 1908, but had failed to obtain appointments on November 1st, 1908. Out of a total of 3,767 students, 846, that is 22½ per cent., had failed to obtain any post whatever.

Though the date to which the figures relate is now somewhat remote, yet the contrast with the conditions existing on November 1st in other years is very striking. The experience of many years has been that the very large majority of students in Training Colleges secured posts before the completion of their training; and for a student to be without an appointment at the end of the summer holidays was almost unheard of. The Association has not been able to revise the figures to the present time, yet from informal communications received, they understand that a large number of students, mainly women, have even now failed to obtain posts as teachers.

2. The Association believes that the *cause* of this is to be found:—

(a) In the absence in the Code of any special recognition of "trained" as distinguished from "untrained" Certificated Teachers; and in this connection the Association notes with regret that the foot-note on page 6 of the Code for 1906, hinting that after July 31st, 1909, a certain proportion of Trained Teachers might be required on a School Staff, has been omitted from subsequent Codes.

The Association is of opinion that this lack of recognition is a serious hardship, when we bear in mind (1) the very different standard of attainment required by the Board in their Examination for the issue of the Certificate to Trained Teachers, as compared with the standard of the Certificate Examination for Untrained Teachers; and (2) that in coming to a Training College, students postpone for two years the wage-earning period of their life; and may, in most cases do, sacrifice a year or more of seniority.

(b) In the competition of the Untrained Certificated Teacher, who is certificated and is able to refer to the result of the Certificate Examination three or four months before students in Training Colleges have completed their course of training; these teachers also have the advantage from the fact that they often apply for a post in the School in which they have been employed as Uncertificated Teachers, and are appointed by Managers on account of their previous experience of the working of the School.

(c) In the competition of the Uncertificated and Supplementary Teachers, as recognised by the Board, whose services can be secured at much less cost to Local Authorities on the look out for means to reduce the charge of education on the rates.

3. The Association believes the *remedy* to be found:

(a) In the general reduction of the recognition given by the Board to Supplementary and Uncertificated Teachers, in regard both to the number recognised and the power given to them; but the Association is of opinion that this reduction should be a gradual process, so as to avoid hardship to those already so recognised.

(b) In the raising of the standard of the Certificate Examination; or its entire abolition in favour of a single Examination, in place of the two now conducted by the Board for Trained and Untrained Teachers.

(c) In effecting that reduction in the size of a class allowed to one teacher which is generally felt to be desirable.

4. While the Association believes that, at any rate, the larger proportion of teachers should receive a course of training in a Training College, and, in consequence, believes that ultimately a further increase in the amount of Training College accommodation will be required, yet it urges that, under existing circumstances, while the output of Trained Teachers is so largely in excess of the demand for their services, and until special recognition is given in the Code to the Trained, as compared with the Untrained Teacher, the Board should temporarily refuse to sanction the establishment of new Training Colleges.

The Deputation consisted of Rev. R. Hudson (President), Miss Bishop (Vice-President), and Mr. Griffiths (Secretary).



5.—The following resolutions were passed :—

(a) That the Association shall consider applications from groups of Colleges for recognition as Sections (*i.e.*, according to educational type) and Local Branches (*i.e.*, according to geographical situation).

(b) That only Members of the Association in any group shall be eligible for membership of the corresponding Section or Local Branch.

(c) That Sections and Local Branches shall elect their own Officers and make their own arrangements for Meetings.

(d) That the expenses connected with Sections or Local Branches shall be met by a small subscription from the members.

(e) That the Association shall not accept responsibility for any resolution adopted by Sections or Local Branches until it has been confirmed by the Association at a General Meeting or in Committee.

(f) That no group of Colleges shall be entitled to the status of a Section or Local Branch until it has been recognised as such by the Association at a General Meeting or in Committee.

Ninety new members have joined the Association since the last Annual Meeting.

## MUSIC IN ELEMENTARY SCHOOLS.

There is need for the gravest concern on the part of those who believe that singing should be an essential element of the curriculum of the Elementary School. For some years the competency and efficiency of students as regards the teaching of singing has declined, the experience of head-teachers of schools agrees with that of those responsible for music in Training Colleges. Many young teachers shirk the music instruction in schools from lack of appreciation and from lack of ability to conduct a singing lesson successfully. This falling off in skill follows from the changes that have been made in the preparatory training of teachers. Whatever has been the effect on their general education, their practical knowledge of music has deteriorated.

The Training College Association has seen the trend of events. At the annual meeting held in December, 1907, it passed the following resolution unanimously :—

This Association is of opinion that it is necessary in the interests of efficiency that students before admission to a Training College should have acquired facility in the following exercises :—(1) clear articulation ; (2) vocal music ; (3) manual instruction and (for women) needle-work. The Association believes that the necessary training should be given during the school period when habits are readily formed, and that the function of a Training College is to train students in the application of these exercises in school. The Association feels that the resolution becomes strikingly urgent having regard to the "Bursar" system.

At the annual meeting in December, 1908, a special meeting of those responsible for music teaching was held, and, after a long discussion, it was unanimously agreed—

That this sectional meeting of the Training College Association views with concern the increasing number of students, now entering Training Colleges, whose previous

training in vocal music has been altogether inadequate or non-existent, and it urges upon the Committee the necessity of bringing this matter before the Board of Education.

These two resolutions have been brought before the Board of Education.

Some falling off in vocal music was inevitable in the changed conditions, but in the face of the views of the Association, views that are shared by all who have a real knowledge of the subject, it was not expected that the Board would encourage candidates to consider vocal music as an unimportant part of their education.

In the syllabus for the "Preliminary Examination for the Elementary School Teachers' Certificate, 1910," the simple test in practical music, which has hitherto been optional, but for which successful candidates obtained marks, has been dropped. A "slip" inserted in the syllabus announces that "Candidates will not be tested in practical music, which has hitherto been included in the syllabus." It will follow that vocal music will obtain less consideration than it has received in the past, and the weakening and the degrading that has set in will receive an impetus. The theoretical examination that is left has no value, the quality and the quantity of the syllabus will affect neither the knowledge nor the taste of the candidates.

The ability to sing agreeably and the desire to interest a class in good songs, is of more importance than a misleading pretentious formal knowledge dignified as a distinct subject. The combination of theory and practice is, of course, necessary for school teachers, but there can be no question as to which is the more important. If students enter Training Colleges at eighteen and nineteen years of age, after neglecting vocal music for four or five years, it will be a waste of time in general to attempt to train such voices. This is strikingly the case as regards men's voices.

in administration can be frankly

music instruction in Secondary Schools, and difficulties in arranging for a practical examination when there are a very large number of candidates. But these are not insuperable and it is a lame conclusion to destroy the practical examination and thereby to deal a serious blow to singing in schools.

The Association should at once face the question, it would do good service in obtaining from each College the further opinions of the teachers of the subject for the annual meeting; in addition, it should enlist the aid of those who believe in the power of music as a force that will tend to the betterment and the happiness of the people. A united effort should be made to ensure that teachers entering upon work in schools, shall have reasonable opportunities and inducements to make themselves proficient in vocal music.

## THE EXPERIMENTAL STUDY OF EDUCATIONAL PROBLEMS IN RUSSIA.

By PROFESSOR J. A. GREEN (Sheffield University).

The experimental study of the fundamental factors involved in education has attracted very widespread interest. The recent report of the Committee of Section L of the British Association presented at the Winnipeg meeting, offers some evidence of its extent, though that report has no pretence to exhaustiveness. It is avowedly nothing more than a preliminary account of the chief centres of research in a new field: and perhaps the most remarkable feature of the report is the variety of institutions which it shows are engaged in the work. It is only in America that research is definitely connected with Universities. To say this is not to forget the greatness of the debt to such University Professors of Experimental Psychology as Meumann, for example, in Germany and Binet in France. It nevertheless remains true that specific laboratory organisation for the study of educational problems is for the most part carried on in extra-mural institutions, which, however, not infrequently enjoy the patronage of a University Professor. These extra-mural institutions derive their funds from strikingly different sources. Here the money comes from a ministry of war, there from a municipality, elsewhere it is furnished by private enthusiasm and generosity and, let it be gratefully acknowledged, in at least two cases it is a Corporation of Teachers who are either providing funds or administering moneys entrusted to them for the advancement of research.

The curious fact that a ministry of war was responsible for the establishment and maintenance of a pedagogical laboratory led me to spend the last month of the recent vacation in the country of its origin. It was the

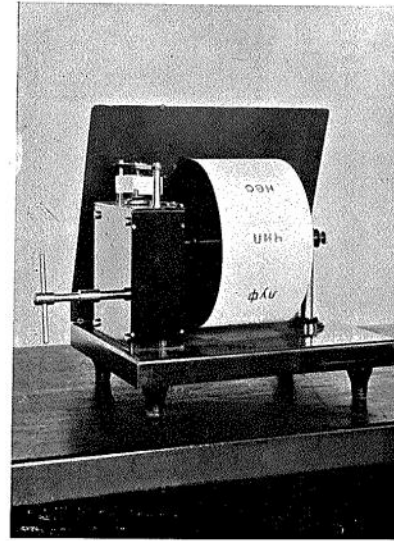


FIG. 2A.

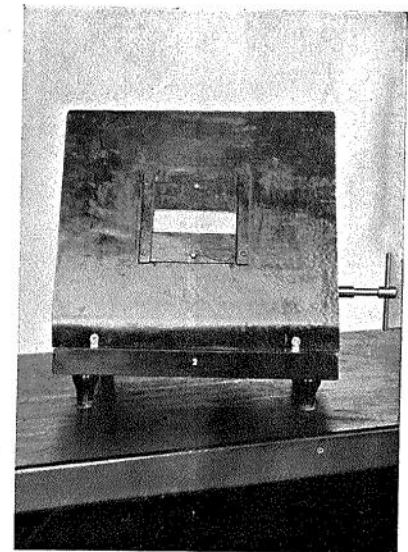


FIG. 2B.

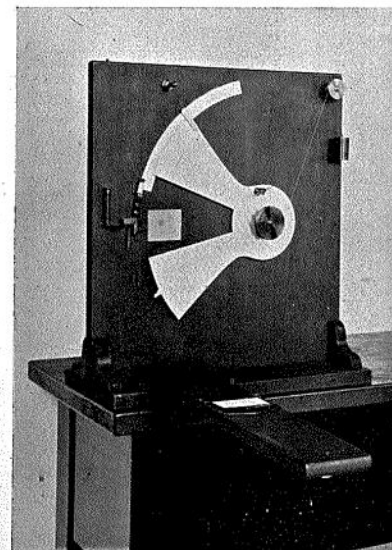


FIG. 3A.

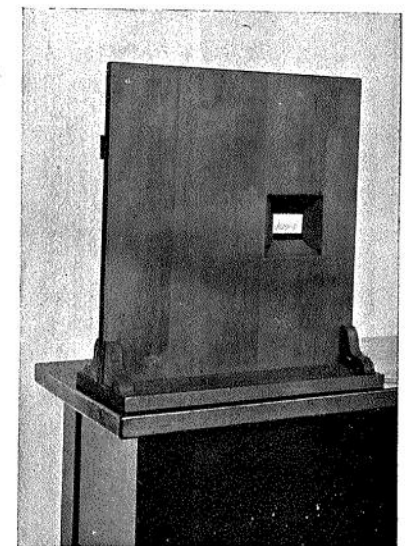


FIG. 3B.

more interesting because the laboratory was something more than a name. There was clearly enthusiasm, ability and material resources, the secret of which it would be useful to know. Moreover, St. Petersburg was not the only centre of activity in this field. The work of Professor Sikorsky in Kiev, as shown in his well-known little book on the mental development of the child, also attracted me, although it follows a line altogether different from that of the experimental psychologists. I had read, too, of the laboratory of the Moscow Institute of Teachers under the direction of Dr. Bernstein who, like his colleague in Kiev, is primarily a mental pathologist, but unlike him, is a disciple of Professor Kraepelin and therefore a representative of the most modern methods of research. Altogether Russia promised to be a stimulating atmosphere for one who is interested in this particular subject, apart altogether from the charm which attaches to a sojourn in a civilisation which presents so many unfamiliar aspects to a relatively untravelled Englishman.

The place of honour in my story belongs to St. Petersburg, and to the work of Professor Netschajeff, who directs the psychological laboratory in connection with the Teachers' Training Courses organised by the Russian War Office. The courses are designed for those who desire to teach in the schools for the sons of Russian officers. These boys are maintained and educated during the seven or eight years of secondary school life entirely at the cost of the State. The teachers in the schools are themselves officers who must, however, in future have passed through the University and subsequently have spent two years in purely professional studies. The courses are held in the Pedagogical Museum—also a War Office establishment with a lieutenant-general at its head—and embrace Physiology, Psychology, the History of Education, and School Hygiene. They were organised in 1900, and in the following year a beginning was made with the psychological laboratory. At the same time it was decided to



allow laymen to attend the lectures and to work in the laboratory, provided there were satisfactory guarantees of their scientific seriousness. Even more important from the professional standpoint was the establishment of holiday courses in child-lore—paidology, as some would call it, though the word does not suit the English ear, and we are commonly falling back upon "Child Study," a substitute which is not altogether satisfactory. The holiday courses were held under the same military auspices; they were widely advertised and teachers from all parts of Russia attended them—teachers in Secondary Schools for the most part.

Perhaps the most striking testimony to the success of these holiday courses (a tribute to the ability and zeal of the director and his voluntary assistants) is to be found in the fact that the nucleus of a psychological laboratory has been set up in no fewer than thirty-three Secondary Schools in Russia. Each of these laboratories, or perhaps they are better called collections of psychological apparatus, represents a centre of interest in the subject which is full of promise for the future. Professor Myers has pointed out some of the difficulties that arise from popular misconceptions which surround the subject, and in order to overcome them Professor Netschajeff has encouraged the institution of short demonstration courses in experimental psychology to the sixth form boys in the higher schools. The greatest difficulty he has had to overcome was that of cost. Apparatus is very expensive, and often much more refined and delicate than is necessary for ordinary demonstration. With the deliberate intention of doing something to popularise the subject, thereby helping to remove certain prejudices in the public mind, he set himself to overcome this difficulty. The teachers who had learned at his hands were interested and keen. It was only necessary to produce cheaper instruments and so enable them to teach the elementary facts of psych-

Whether we agree with the introduction of experimental psychology into the schools as a subject of study for a select few or not, the subject is not without importance for the Training Colleges where a certain amount of psychology is almost an essential part of the curriculum. Thanks to the kindness of Professor Netschajeff, I was able to bring away from his laboratory a set of these new instruments so far as he and his assistants have successfully overcome the difficulty of providing them. They

include, for example, a chronoscope, which serves admirably for demonstrating even to a large class the minutest differences in reaction times—simple and complex, and which costs less than a fourth of the price of the Hipp chronoscope.\* It has the further advantage of being independent of any electric current. It is always ready for use, and although the results are read in linear units, these are accom-

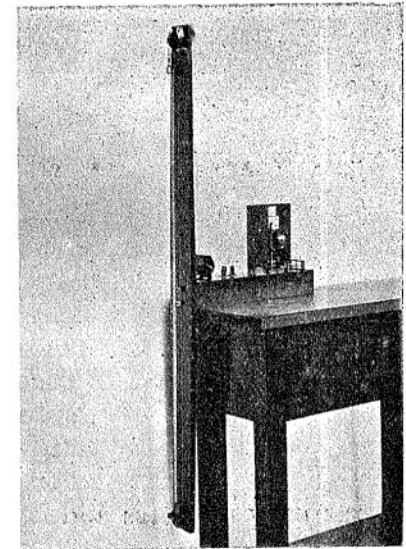


FIG. 1.

panied by a table of times by means of which these units can be at once expressed in thousandths of a second. It could hardly be expected that these results would be absolutely accurate, but for purposes of demonstration and comparison the instrument can be used in a considerable variety of ways when time measurements are wanted. (Fig. 1.)

\* A detailed description of the Hipp chronoscope will be found in

The same advantage in price attaches to the rotating drum, which serves as kymographion, memory apparatus, association apparatus, etc.—all, of course, simplified as far as possible without, however, destroying their essential character. The drum is actuated by clock-work, and its speed is regulated by the usual rotating steel sheets, the position of which increases or diminishes the resistance of air. (Fig. 2, *a* and *b*.)

Another exceedingly useful instrument in the analytical investigation of complex psychical processes is the tachistoscope, by means of which a card, on which various objects are drawn, is momentarily exposed. The commonest form is the fall-tachistoscope in which the length of the exposure is primarily determined by the height from which the fall takes place. The particular form designed by Professor Wundt has all the advantages of accurately drawn scales of height, etc., and mechanical neatness of construction, but it has the grave defect of being noisy. It takes some little time for many people—especially children—to overcome the nervous anticipation of the shock to the ear, in spite of the cushion designed to deaden the sound. Moreover, it is expensive, and it requires the use of an electric current. All these disadvantages have been largely overcome by the instrument designed at St. Petersburg. It is relatively noiseless and is actuated by a spring lever instead of by the breaking of an electric circuit. The times of exposure can be measured in the same way as that of any other fall instrument, and, moreover, it is more portable than that designed by Professor Wundt, which is figured and described in most text books of experimental psychology. Lastly, it costs about one-fourth the price of the Wundt instrument as it is supplied by the Leipsic firm of Zimmermann. (Fig. 3.)

Apparatus for illustrating Fechner's law, for colour mixing, and for illusions of sense complete the set which is sufficient to illustrate the fundamental truths of

siastic reception of this small collection by the teachers in Russia is shown by the number of them who have set up small laboratories sometimes at their own expense, sometimes at the expense of a circle of teachers interested in the subject, and less frequently, at the expense of the school.

The success of this movement initiated by Professor Netschajeff, represents only one side of his work, though from the point of view of the ultimate position of the subject, by no means the least important. He has necessarily had to give up time which might have gone to purely scientific investigation, to the task of popularising his ideas amongst teachers. Nevertheless, his laboratory produces a steady output of original work, in accomplishing which he is fortunate in having secured the devoted interest of a number of men who devote their spare hours to laboratory and school investigations. Some account of these appeared in the *Zeitschrift für Experimentelle Pädagogik*, Vol. III. The director himself has published papers on the psychology of various ages—development of visual memory, of verbal memory, developing rapidity in working simple arithmetical processes, varying suggestibility, etc., as well as on the individual susceptibility of children to fatigue and to the effects of practice. Researches into special problems have also been undertaken by assistants in the laboratory—the development of perception in normal and in blind children, the personality of the pupil, the psychology of the youthful criminal, etc.

The work has now been so systematised that it has been found possible to establish a year book, the first volume of which appeared in the spring of this year. It contains articles on the general relation of "paidology" to education; the cabinet of psychological instruments which is described above, the study of intelligence (a translation of two of Professor Meumann's articles), individual instruction and the problem of collective

relating to the subject which have appeared during the year. Altogether it is a considerable volume of nearly three hundred pages, and a sufficient testimony to the activities of the laboratory and of the Russian society for experimental pedagogy which is its direct outcome.

The spirit which one met on every side in Russia recalled to one's mind the educational ferment in Germany which followed the national disasters in the first decade of the nineteenth century. There is a tremendously keen interest in education, less keenly manifest in the official actions of the National Department of Education where conservative and clerical interests are too strong to allow very rapid change, but amongst the educated unofficial class no subject makes a stronger appeal, and the society for experimental pedagogy numbers amongst its members men who are neither teachers nor psychologists, but are amongst the leaders of thought in a Russia which is slowly but surely working out its political salvation. This is hardly the place to enter into a general account of Russian schools as I saw them, but nothing impressed me more than the profound belief in education as the one possible source of national development and welfare. In that interest, they are eager to work at the problem, and to understand what it involves on its psychological side, although in the meantime they have to lament the absence of any compulsory education law for the people and to be content with a three year course in their primary schools for the children of parents who care to send them.

To return to the special subject of this paper, I ought not to leave the St. Petersburg laboratory without a word as to its material equipment. The work is done in five large rooms, each of which is specially adapted to particular kinds of work. There is a good collection of all the usual apparatus for psychological work, and the director is in the fortunate position of being able to obtain any instrument which is, in his view, essential to work that is actually projected—probably about one hundred pounds a year is spent in the purchase of apparatus.

The Education Department of the War Office is thoroughly interested in the work, and the public spirit of its officials is well illustrated by the fact that they have opened the courses to teachers who are working in civilian schools. The cadet corps are, from the social standpoint, amongst the leading boys' schools in the land. In the 1st cadet corps, for example, which occupies the palace of Peter the Great's Minister, Metchnikoff, the Czar's only son is entered as an honorary pupil. His vacant seat with his name inscribed upon a silver plate let into the desk was pointed out to me, and it is in the interest of the teachers in these great schools that the research laboratory has been established. In Russia it is the ministry of war and not the ministry of public instruction which represents the most advanced opinion in the matter of education.

It is a night's journey from Petersburg to Moscow—from the cosmopolitan city of Peter the Great's creation to Russia's holy city with its magnificent Kremlin. The temptation to set down mere travel impressions is strong, but must be resisted. I pass, therefore, straight to the educational research laboratory which is housed in the rooms of the Moscow Corporation of Teachers—one of the most important professional bodies in the country. They occupy a beautiful suite of rooms on two floors in a large Moscow house. The lower floor is devoted to the library, to recreation, and assembly rooms. In character they remind one of the rooms of some of our smaller city guilds. The floor above is devoted to lectures and to laboratory work. The funds for the laboratory were left to the Corporation for that purpose, and the work is being organised under the direction of Dr. Bernstein, *Privatdozent* in the University of Moscow in the Department of Mental Pathology. Not unnaturally, therefore, the chief interest of the laboratory at present lies in the study of the problems relating to intelligence in its various levels.

The laboratory has just published its first volume of *Transactions*—a pamphlet of 60 pages only, and rather

a manifesto than a record of actual accomplishment. The most interesting article is that by Dr. Bernstein, assisted by two other workers, on "Practical Methods in the Experimental Investigation of Individual Intelligence." It would take up too much space to give an adequate summary of the article, but I may indicate briefly the main lines of the methods adopted. The tests are, of course, applied to children in circumstances which make it impossible for one child to influence another.

1. *Perception and Recognition*.—A series of pictures of individual objects from the ordinary environments are shown and the child is asked to name them. The first of Füssli's picture booklets for modern language lessons is used. (*Bildersaal für den Sprachunterricht*—No. 1 Zürich.)
2. *Capacity for understanding a series of pictures depicting various events in a simple story*.—Reading a simple series of story pictures such as we are familiar with in children's magazines.
3. *Capacity for combination*.—How a child proceeds to build up a simple picture which has been cut up into four or five irregular parts.
4. *Capacity for analysis*.—His method of procedure, for example, in dividing 287 by 7.
5. *Attention*.—Detection or otherwise of misprint in familiar phrase.
6. *Memory*.—A set of nine geometrical figures is shown upon a card; these are immediately afterwards shown to the child amongst sixteen other figures, and he is asked to identify those which he saw previously.
7. *Association*.—Free associations and associations under fixed conditions on the lines of Ziehen's work in Berlin.

The list is no more than an enumeration of the several directions of the investigation which is being carried on at Moscow with the help of teachers in all types of schools. There is, by the way, no difficulty of grade in the teaching profession in Russia. The Moscow institution of which I have spoken includes both primary and secondary teachers indiscriminately, and work of this kind can be undertaken in common much more easily than is at present the case in England. Much more important than any actual results so far achieved, is the fact that professional interest in questions of the kind is growing and preliminary investigations are being carried out under auspices of the most promising kind. Dr. Bernstein himself was enthusiastic as to the possibilities of the work. It was particularly pleasing to find it being carried on by teachers themselves in their own premises and with their own trust funds. Leipsic has, of course, a similar institution, but that city is the original home of experimental psychology and we may expect its teachers to be infected by the personality and work of a Wundt. To find the same spirit in the heart of Russia is more surprising evidence of the influence of the experimental psychologist upon educational thought and effort.

In Kiev it is the Professor of Psychiatry who represents educational research. His interest in the subject began with his professional concern for mentally defective children. Instead, however, of pursuing what he considers to be over-refined laboratory methods of mind study, he has emphasised the purely physical side of child study—the movements, gestures, heart-beats, breathing, as well as the cranial formation of children should, in his view, be carefully studied and regularly recorded. He makes great use of works of art as object lessons in psychology and tests of observing powers; Kaulbach's *Album aus dem Kinderleben* (Hanfstaengl) he finds an admirable instrument for training teachers to observe carefully the minuter indications of psychical



possible in this article to do more than put on record the work which Dr. Sikorsky is doing in his own Institute for Defective Children, and in the Fröbel Institute of Kiev which he founded some years ago. He represents a different school of work from that which these articles have in the main dealt with, but it is none the less severely scientific in its intentions, though perhaps less rigidly so in its procedure in the direction of physiognomy.

I may, in conclusion, say that my colleagues in the various Russian institutions which I visited displayed such kindness and even eagerness to show me everything they were doing, that it is not easy to express adequately my deep sense of personal obligation. It was an altogether inspiring holiday, and my greatest hope is that its fruits may be seen in the more adequate organisation of the small educational laboratory which is making a modest start this year in the University of Sheffield.

## “GENERAL ABILITY” AS AN EDUCATIONAL DATUM.

By T. PERCY NUNN, M.A., D.Sc. (London Day Training College).

In ultimate analysis there are three factors in the educational process: the endowment of the *educand*, the environmental influences brought to bear upon him, and the purpose underlying the selection of these influences so far as they are subject to the control of parents, teachers, and education committees. By the ordinary teacher the aims of the educational process must be accepted as data; they are determined for him rather than by him. To a less extent the same thing holds good of the second factor: even in matters of curriculum and method the teacher's initiative is circumscribed by tradition and other forces not under his control. But for all who play a part in the great business of education the endowment of the child is and must be the *datum datissimum*. That is why our present ignorance of it is the best measure of our distance from a satisfactory science of education.

That this distance is great—perhaps scandalously great—is obvious from the startling diversity of present views upon the relation between our first two factors, endowment and environment. At one extreme of the gamut are the theories which attribute overwhelming importance to endowment and practically deny to environment any formative powers at all. Circumstances of education and life are to the man as rocks and winds and currents are to the ship; they are occasions for the manifestation of his qualities but have nothing to do with the manufacture of the vital machinery which underlies them. Such is the impression that one gets from Mr. Galton's nightmare histories of twins\* who

\* Galton: *Inquiry into Human Faculty* (now published in the “Everyman” series).

behave throughout their lives like clock-work automata turned out by the same factory and wound up at the same moment. The disquieting inference from these histories is that we are all being driven upon life's course by the fatal *vis a tergo* of endowment, although, owing to the happy infrequency of twins, most of us are able to dwell in a fool's paradise where the depressing fact may be ignored. At the other extreme are the theories in which environment plays the predominant rôle. The soul brings nothing into the world and derives its whole nature and content from its experiences. The most important of these experiences are of ideas; and, since purposeful selection may to a large extent determine what the character of the ideal environment shall be, the soul may, to the same extent, be regarded as an artefact capable of being fashioned in accordance with a definite educational plan.

An important special case of this difference of opinion upon fundamentals is offered by the question whether the teacher is to regard each of his pupils as characterised by a definite "coefficient of general ability," or whether this very common notion is to be dismissed as a superstition that cannot face the light of a sound psychological theory. It is clear that if the soul consists of nothing but the systems of ideas that have been built up in it, it can possess nothing answering to the notion of general ability. A cunningly fashioned system will be more effective than one which mischance or bungling architects have deformed; and, under happy conditions, the whole of the systems constituting a given soul may be so harmonised as to exhibit the impressive force of "many sided interest." But in each case the phenomenon which the layman calls "ability" is a property of the ideal systems as such, not a native character of the mind that owns them. On the other hand, the view that regards mental development as essentially an unfolding of a part of the pupil's endowment finds no difficulty in the concept of general ability as a constituent of that endowment.

We may, perhaps, see the promise of a better day for educational theory in the fact that psychologists are beginning to seek answers to such questions as this, not by general discussion, but by specific experimental and statistical inquiries. An interesting beginning was made by Mr. Galton himself in the experiments that seemed to indicate that men of "ability" in the scientific world possessed a superior power of discriminating differences of weight.\* There seemed to be evidence here that the scientific distinction of Mr. Galton's subjects was a manifestation in a particular field of a factor that was also involved in widely different mental performances.

Unfortunately, the investigators who followed up Galton's clue found that experiment did not speak with a very certain voice. Although between 1889 and 1902 numerous researches were undertaken with the general aim of determining the extent of connexion or "correlation" that exists between the different mental functions of an individual, the results were so discordant as to afford, apparently, no ground for the definite endorsement or rejection of Galton's hypothesis. But in 1904 Dr. C. Spearman, now Reader in Experimental Psychology in University College, London, published a very important paper in which he maintained that the unsatisfactory results of preceding inquirers were to be attributed almost entirely to faulty methodology—in particular to an inadequate treatment of their statistics and experimental observations. He proposed methods of dealing with these matters that should ensure the inquirer against erroneous interpretations of his results, and illustrated their application by means of new data collected by himself. More recently the same psychologist has invented a method of calculating "correlations" that makes this fundamental process vastly simpler than it was before.†

\* Galton: *op. cit.*

† The papers in question are: "General Intelligence Objectively Determined and Measured" (*American Journal of Psychology*, vol. xv., No. 2, April, 1904), and "Foot-rule for Measuring Correlation" (*British Journal of Psychology*, vol. ii., part 1, July, 1906). They will be referred to as the "first paper" and the "second paper" respectively.

It appears to the writer that Dr. Spearman's researches have settled some questions of great importance to the teacher, that they have opened up a number of others equally important, and that the "foot-rule" for measuring correlation which he has put into our hands is an instrument that can be applied most usefully to a variety of class-room problems of daily occurrence. It is, therefore, the object of this article to give an account of Dr. Spearman's work sufficient to show its relevance to educational theory and practice, and to convince readers of the *Record* of the advantage of a first hand acquaintance with it.

We begin with a consideration of the notion of statistical correlation and of the "foot-rule" for measuring it.

Suppose that a number of boys of the same age are selected from a school class, that their names are written down in alphabetical order, and that opposite their names numbers are filled in to indicate their orders of merit with regard to two different performances—for example, Latin and "throwing the cricket ball." Then the measurement of correlation is an attempt to get from these numbers light upon the question whether superiority in Latin tends or does not tend to be associated with superiority in throwing the cricket ball. It is obvious that if the orders of merit in the two performances were identical the question would be already answered; the two forms of superiority must be recognised as going hand in hand—at least as far as these boys are concerned. Again, if the two orders were so much alike that the second could be thought of as merely a slight disarrangement of the first, we should feel compelled to believe in a close though not a perfect connexion between ability in the two directions in question. But if the discrepancy between the two lists were imagined increasingly greater it is clear that we should at length be unable to regard them as giving any evidence of a connexion between prowess in Latin and in ball-

throwing. We should be obliged to admit that whatever degree of resemblance between the two lists still remained could not safely be attributed to anything but chance. Our first inquiry must, then, aim at determining what amount of agreement between the orders of merit is necessary to justify an assumption of connexion between the performances.

The non-mathematical reader will be able to understand how such a determination is possible by considering—or, better still, by repeating—the following experiment. Seventeen small square cards were taken, each bearing one of the letters A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q. (The cards used in the "word-game" do excellently.) The cards were shaken up in a hat and then drawn at random, the position of each letter in the drawing being entered on a list. When all the cards had been drawn they were shaken up again and once more drawn at random; the order in which the various letters came out being noted as before. This process was performed 101 times in all. The results of the first three drawings are given in the following table:—

ORDER OF DRAWINGS OF 17 LETTERS.

	(1)	(2)	<i>d</i>	(3)	<i>d</i>		(1)	(2)	<i>d</i>	(3)	<i>d</i>
A	2	15	13	1	—	J	4	4	—	11	7
B	16	5	—	17	12	K	14	6	—	6	—
C	11	1	—	12	11	L	13	7	—	15	8
D	10	9	—	—	5	M	3	14	11	13	—
E	6	16	10	3	—	N	12	11	—	4	—
F	9	17	8	9	—	O	1	3	2	14	11
G	7	12	5	16	4	P	17	2	—	10	8
H	15	10	—	7	—	Q	5	13	8	8	—
I	8	8	—	2	—						
Sum of <i>d</i> 's ...								57		61	

Under (1) is recorded the order in which the letters appeared at the first drawing, under (2) and (3) their order of appearance at the second and third drawings. In the first column headed *d* is entered the difference

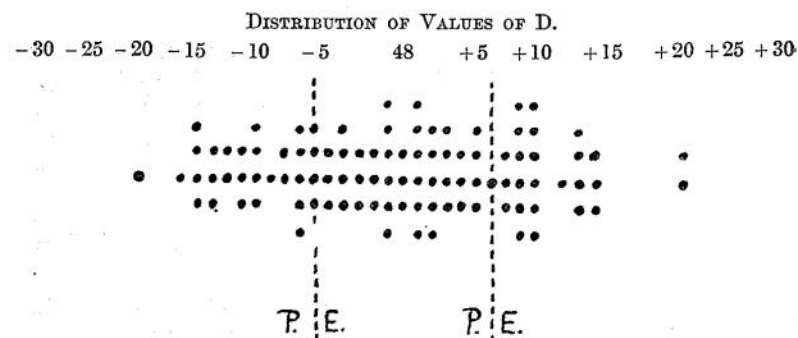
between the order of appearance or "rank" of a letter in the two drawings whenever the second rank is lower than the first. Thus at the first drawing A came second and in the next drawing fifteenth. The difference between these numbers (13) is recorded as A's difference of rank. Since the rank of B at the second drawing was higher than at the first, the difference is in this case not recorded. In the same way the figures under the second *d* record the differences between the second and third drawings. The differences have been added together in both these cases, the totals being 57 and 61. Since the total fall in rank suffered by some of the letters between two drawings must be compensated by an equal total gain of rank by others it is necessary to take account only of the loss (as we have done) or of the gain, but not of both. The total loss (or gain) of rank between two drawings may be taken as a measure of the divergency between the orders in which the letters are drawn. We will symbolise it by the letter D.

With a considerable number of such random drawings before us two points of great importance come out. The whole mathematical theory of statistics may be said to depend upon them. The first point is that although the value of D may vary within wide limits, yet its *average* value for anything more than a small number of drawings remains approximately constant. Thus in the actual experiment here described the average values of the total loss of rank between successive members of the series of 101 drawings of 17 letters ran as follows:—

AVERAGE VALUE OF D WITH 17 LETTERS.											
After 10	20	30	40	50	60	70	80	90	100	drawings	
the average of D was	48.5	48.2	48.9	48.5	47.7	47.9	48.3	47.4	47.2	47.5	

An inspection of these numbers cannot fail to suggest that the average of D is (so to speak) trying to preserve a constant value which is either 48 or is in the near neighbourhood of that number. There does not seem any reason to expect that a further continuation of the drawings would lead to anything more striking than the small fluctuations of the first ten decades.

The second point concerns the distribution of the individual values of D about their average value—which we shall assume to be exactly 48. It is not merely the case that for every total rank-difference that exceeds 48 there shortly appears in the course of the drawings a total exhibiting an equal defect from the average: it is further to be observed that the various values of D are by no means evenly distributed along the numbers above and below 48, but are clustered about that average. This is brought out by the following diagram. Numbers along the horizontal scale—such as +10 or -5—indicate excess or defect of the value of D above or below 48, while each  $\circ$  underneath such a number represents a drawing in which the total loss of rank had that value.



It will be observed (1) that D was greater than 48 almost exactly as often as it was less, the precise numbers of the dots to the right and left of the centre column being 48 and 49 respectively, while in three cases D had exactly the average value; (2) that in not one out of the whole 100 cases did the deviation from the average exceed 20; (3) that in almost exactly half the cases (48 out of 100) D did not differ from its average value by more than 6. The marks representing these 48 cases are included between the dotted lines P.E., P.E. The magnitude of the limit within which one half of the cases are included is (when expressed as



a fraction of the average) called by the not very illuminative name "probable error." In this experiment, therefore, the probable error was about  $6/48$  or  $.125$ .

It will be observed, further, that the number of values of  $D$  whose deviation from the average exceeds twice the "probable error" is 16; 5 being greater and 11 less than 48. It is in accordance with the general character of the results to suppose that with more drawings this inequality would have disappeared, and that in the long run about 8 per cent. of the drawings will give a value of  $D$  whose *deficiency* below the average will be more than twice the probable error. In only three cases was the deviation, positive or negative, more than three times the probable error. We may conclude similarly, that in about 1.5 per cent. of the cases there will occur a drawing whose deficiency below the average is more than three times the probable error. Finally it would appear that 100 is too small a number of drawings in which to count upon a value of  $D$  differing from the average more than four or five times the probable error. Since, however, such cases undoubtedly would turn up occasionally—for chance might give the letters twice in exactly the same order, when the deviation would be eight times the probable error—it is evident that we can deduce from their failure to appear in our experiment nothing but that they are rare. It is evident, too, that very little confidence can be felt that the percentages calculated above would hold good for a very much larger number of random drawings.\*

We are now in possession of sufficient data to answer in a special case—the case of a class of 17 persons—the question which gave rise to our experimental investigation. That is to say, if we were given the orders of merit of such a class with respect to two different performances we should now be able to assign a definite numerical measure to the degree of resemblance between

\* There are theoretical grounds for the anticipation that out of a very

the orders and to determine whether it is so great that we may safely infer a substantial identity between the faculties involved in the two performances or so small that it may not safely be attributed to anything more than chance. This use of our results may be illustrated by applying them to the analysis of a set of College lists that deal with the performances of a class of seventeen

Student.	(1)	(2)	(3)	(4)	$d_{13}$	$d_{14}$	$d_{23}$	$d_{24}$	$d_{12}$	$d_{34}$
A ...	$10\frac{1}{2}$	9	11	8	$\frac{1}{2}$	—	2	—	—	—
B ...	17	9	14	12	—	—	5	3	—	—
C ...	3	5	4	7	1	4	1	2	2	3
D ...	15	15	13	16	—	1	—	1	—	3
E ...	$7\frac{1}{2}$	9	16	15	$8\frac{1}{2}$	$7\frac{1}{2}$	7	6	$1\frac{1}{2}$	—
F ...	12	14	$5\frac{1}{2}$	5	—	—	—	—	2	—
G ...	15	16	17	17	2	2	1	1	1	—
H ...	15	$3\frac{1}{2}$	1	3	—	—	—	—	—	2
I ...	13	17	$7\frac{1}{2}$	2	—	—	—	—	4	—
J ...	4	6	2	4	—	—	—	—	2	—
K ...	2	2	15	13	13	11	13	11	—	—
L ...	$5\frac{1}{2}$	9	9	9	$3\frac{1}{2}$	$3\frac{1}{2}$	—	—	$3\frac{1}{2}$	—
M ...	1	1	3	1	2	—	2	—	—	—
N ...	$5\frac{1}{2}$	12	12	14	$6\frac{1}{2}$	$8\frac{1}{2}$	—	2	$6\frac{1}{2}$	2
O ...	9	9	10	11	1	2	1	2	—	1
P ...	$7\frac{1}{2}$	13	$5\frac{1}{2}$	6	—	—	—	—	$5\frac{1}{2}$	$\frac{1}{2}$
Q ...	$10\frac{1}{2}$	$3\frac{1}{2}$	$7\frac{1}{2}$	10	—	—	4	$6\frac{1}{2}$	—	$2\frac{1}{2}$
					38	$39\frac{1}{2}$	35	$34\frac{1}{2}$	28	16

It will be understood that the repetition of the same number in a column implies a "tie" between the two or more members of the class. Thus in the first examination the students "L" and "N" were bracketed fifth in order of merit, while "E" and "P" were bracketed seventh. Accordingly the rank  $5\frac{1}{2}$  (i.e., one-half of 5 plus 6) is assigned to each of the first pair, and the rank  $7\frac{1}{2}$  (i.e., one-half of 7 plus 8) to each of the second pair. In this way the proper total of the rank marks is preserved. For the same reason "D," "G" and "H," who were bracketed as fourteenth in order of merit, receive each the rank 15 (i.e., one-third of 14 plus 15 plus 16).

postgraduate students. The lists give the order of merit of the students in two examinations in the Theory of Education—one held at Christmas after a single term's lectures in the subject, and the other at Easter after two terms' instruction—and also give their order of merit in practical teaching at the end of the year's course according to the independent estimates of two supervisors. The above table gives the four lists headed by the

examinations in Theory and the two estimates of teaching ability. The next four columns give the differences in rank in respect of theory and practice derived from the consideration of these lists in pairs. Thus the column headed  $d_{13}$  gives the rank-differences between the results of the Christmas examination and the first of the two estimates of practical teaching ability. The columns headed  $d_{12}$  and  $d_{34}$  will similarly be understood to contain the rank-differences between the two examinations in theory and the two estimates of teaching power respectively. The numbers at the feet of the last six columns are, of course, the sums of the rank-differences which we have already symbolised by the letter D.

If now we ask what these lists have to tell us about the relation between ability to assimilate and reproduce knowledge of the theory of teaching and practical ability in dealing with the problems of the class-room we must look, in the first instance, at the numbers which give the total rank-differences with respect to the two kinds of performance. It will be seen that comparison between the result of an examination and a supervisor's estimate yields in each case about the same value of D, the average being  $36\frac{3}{4}$ , or in round numbers, 37. Thus we have an average deficiency of  $48 - 37 = 11$  from what we have found to be the average value of D for merely random differences of rank. This deviation is about twice the "probable error." But we have seen that a deficiency from the average of this amount would occur in only about 9 per cent. of the cases in which the rank-differences of 17 persons with respect to two performances were due merely to chance. We may conclude that it is 91 to 9, or about 10 to 1 that the degree of congruence exhibited by the lists before us is due to something more than chance. It is sufficient, in fact, to make it very probable that whatever the factor may be that in the main determines a student's position in the examinations in theory the same factor has predominant influence in determining the estimate that his supervisors

It has already been stated that it is customary to quote the probable error, not in its absolute value, as we have done in the preceding paragraph, but as a ratio in which the average value of D is the denominator, so that in the present instance the probable error would be reckoned not 6 but  $6/48$ , or  $\cdot 125$ . Similarly the degree of resemblance between two orders of merit is expressed by stating the ratio of the actual deficiency of D from its average value when the rank-differences are determined by chance to this same average value. Thus the *coefficient of correlation* between the performances of our students in the theory and practice of teaching is to be reckoned as  $11/48$ , or  $\cdot 23$ . It is obvious that the rule here followed might be expressed in the symbolical form,

$$R = 1 - D/A$$

in which, as before, D means the actual sum of the rank-differences observed in the given case while A stands for the average value of D in a long series of cases in which the rank-differences are determined merely by chance.

Needless to say statisticians, in determining coefficients of correlation and probable error, are not dependent for their data upon tedious investigations such as our experiments with the letter-cards. In the second of the papers which we have quoted, Dr. Spearman shows that if the number of terms comprised in the class is called  $n$ , the value of A is given by the formula  $(n^2 - 1)/6$ , while the probable error is given by the formula  $\cdot 43/\sqrt{n}$ . Applied to the case when  $n$  has the value 17 the formulæ yield for A and for the probable error the numbers 48 and  $\cdot 10$ , the first in entire, the second in fair agreement with the results of our experimental inquiry.

It was stated towards the beginning of this article that Dr. Spearman's method of estimating correlations is much simpler than the methods of his predecessors. It should be added that he intends his "foot-rule" for use only in those cases where relatively large correlations are present and relatively rough determinations of them suffice. In other cases we must have recourse to the

been elaborated by previous workers. By far the most important of these is the method which has been made classical in the biological researches of Prof. Karl Pearson. The teacher can hardly ever need in his calculations of correlation a degree of accuracy that the "foot-rule" cannot yield; nevertheless since Pearson's may be regarded as the standard method of estimating correlation there is a convenience in expressing ultimately in the older scale results obtained by the newer method of calculation. Dr. Spearman has, by an ingenious investigation, discovered the connexion between his own coefficients ( $R$ ) and those of Prof. Pearson ( $r$ ) and has given the following table which exhibits their equivalences.

$R$	$r$	$R$	$r$	$R$	$r$	$R$	$r$	$R$	$r$
.00	.00	.20	.31	.40	.59	.60	.81	.80	.95
.01	.01	.21	.32	.41	.60	.61	.82	.81	.96
.02	.03	.22	.34	.42	.61	.62	.83	.82	.96
.03	.05	.23	.35	.43	.62	.63	.84	.83	.96
.04	.06	.24	.37	.44	.64	.64	.84	.84	.97
.05	.07	.25	.38	.45	.65	.65	.85	.85	.97
.06	.08	.26	.40	.46	.66	.66	.86	.86	.98
.07	.11	.27	.41	.47	.67	.67	.87	.87	.98
.08	.13	.28	.43	.48	.68	.68	.88	.88	.98
.09	.14	.29	.44	.49	.70	.69	.88	.89	.99
.10	.16	.30	.45	.50	.71	.70	.89	.90	.99
.11	.17	.31	.47	.51	.72	.71	.90	.91	.99
.12	.19	.32	.48	.52	.73	.72	.91	.92	.99
.13	.20	.33	.50	.53	.74	.73	.92	.93	.99
.14	.22	.34	.51	.54	.75	.74	.93	.94	1.00
.15	.23	.35	.52	.55	.76	.75	.93	.95	1.00
.16	.25	.36	.54	.56	.77	.76	.93	.96	1.00
.17	.26	.37	.55	.57	.78	.77	.94	.97	1.00
.18	.28	.38	.56	.58	.79	.78	.94	.98	1.00
.19	.29	.39	.57	.59	.80	.79	.95	.99	1.00

As a first exercise in the use of this table the reader will observe that the correlation between proficiency in the theory and in the practice of teaching estimated in the case of our 17 students as .23 upon Spearman's scale becomes, upon Pearson's "standard" scale, .35.

Before we leave the consideration of this example attention should be called to the rank-differences entered in the last two columns of the table on page 29. The

first of these, headed  $d_{12}$ , is derived from a comparison of the positions of the 17 students in the two examinations in Theory held respectively at Christmas and Easter. The rank-differences of the last column result from a similar comparison of the two independent estimates of the students' ability in practical teaching. In the former case  $D$  is 28, its deficiency from  $A$  is 20, and the resulting value of the coefficient of correlation  $R$ , is  $20/48$ ; that is, .42. This is more than four times the probable error as calculated by the formula for a class of 17; a state of affairs that would be produced by chance in only about .3 per cent. of the possible cases. We may say, then, that it is more than 300 to 1 that the positions of the students in these lists are determined in each case by the same predominant factor—a factor which we can hardly describe otherwise than as an "ability" to assimilate and reproduce the instruction given in the theory of teaching. Even if we take the higher value of the probable error suggested by our experiments, namely, .125, the chance must still be estimated as about 100 to 1. At the same time a degree of congruence between the examination results measured by a coefficient  $R = .42$ , or its equivalent  $r = .61$ , cannot be considered very high. For example if we turn to the last column we find that the correlation between the two estimates of teaching ability works out at  $R = 1 - 16/48 = .67$ , or that  $r = .87$ . Even taking the higher value for the probable error we have here a result that could occur by chance in only .03 per cent. of the cases or only once in more than 3,000 times. Assuming the two estimates of practical ability to be really independent, and that the supervisors have not unconsciously adopted one another's opinions, we are compelled to accept one or both of two hypotheses. Either the ability to assimilate and reproduce knowledge of pedagogical theory is a "faculty" that may change from term to term, or the conditions of instruction and examination now under review were an inadequate diagnostic of that form of ability. The fact that the correlation between theory

and practice was higher at Easter than at Christmas suggests the explanation that in so short a time as two terms the students were not able to develop their true "form" in a new and difficult subject, and that in that sense both the hypotheses are to be accepted.

This interpretation is supported by a study of the results of four examinations in the Theory of Teaching in a class of 56 undergraduate students who received lectures in the subject for two years. The correlation between the results of the first and second examinations gives  $r = .17$ , between the second and third,  $r = .57$ , and between the third and fourth,  $r = .54$ . It would appear from these numbers that the students began to exhibit their permanent "form" in the subject about the end of the first year. The average of the last two correlations, which is equivalent to  $R = .375$ , is, absolutely, less than the correlation exhibited in the case of the postgraduate students. Since, however, it has to be considered in relation to a probable error of only  $.058 (= .43/\sqrt{56})$ , it actually implies a much higher degree of certainty of connexion between the performances than the former correlation.

Observations of this kind obviously have an important bearing upon the question whether in determining a student's "leaving mark" in such a subject as the Theory of Teaching, the full total of his marks in each examination should be taken into account.

Without going any farther it would seem that there is here a wide field for useful applications of the notion of correlation and of the "foot-rule." So long as examination results, in school or college, are relied upon as indices of the relative merits of individuals it must be important to have an objective measure of the efficiency of the examination from this point of view. Such a measure is undoubtedly given by the coefficient of correlation between the results of successive examinations which seek to appraise the same kind of merit. Of much

which pupils receive in a subject. For example, the mere existence of a low correlation between the results of successive examinations in the same subject (either in different classes or in the same class) is enough to constitute a case for inquiry into the conditions of instruction in the subject, unless it can be shown that the examinations are themselves unsuitable as tests. It must not be forgotten that the "lowness" of a correlation is always to be estimated in relation to the probable error.

If we have to admit that our two examinations in theory were inadequate as tests of the powers of the students in this subject, then it must be further admitted that they were relatively unsatisfactory data for settling the question whether the abilities involved in proficiency in the theory and practice of teaching are congruent. Fortunately Dr. Spearman has shown us how to improve the results of an investigation of this kind whenever, as here, two independent sets of rank-determinations have been obtained for each performance. His rule,\* applied to our particular case, works out as follows: Take, on Pearson's scale, the average of the four correlations between theory and practice which our lists permit us to calculate. The value of this average is, we have seen,  $.35$ . Next take the correlation between the two orders of merit in theory ( $r = .61$ ) and between the two estimates of practical teaching ability ( $r = .87$ ); multiply these together, take the square root of their product ( $= .73$ ), and divide it into the average correlation previously calculated. The result will be the true correlation to be deduced from the data at our disposal. On Pearson's scale its value is  $.35/.73 = .48$ . Translated into Spearman's scale this coefficient becomes  $.32$ , an amount which is about three times as great as the probable error. Such a result, representing a probability of about 50 to 1 against a chance congruence of the orders of merit, greatly strengthens our belief, based upon a "raw" correlation  $R = .23$  that there is a single



factor predominant in determining the position which a given student will take among his fellows in respect either of his ability as a teacher or of the kind of ability tested by the examinations in the theory of teaching.

It will be understood that our discussion of the congruence between ability in the theory and in the practice of teaching has been undertaken simply as an illustration of the methods employed in this kind of investigation and of the results to which they lead. A *proof* that the concept of "general ability" is legitimate must, as Galton saw long ago, be based upon a much wider range of evidence. That evidence has now been found in considerable quantity. Following up Galton's hint, Spearman examined various groups of persons—elementary and high school children, and adults—with respect to their power to discriminate musical notes of nearly the same pitch, and intensities of light and weight, and compared the results of his tests with those of examinations in "intellectual" subjects whenever the latter were available. The result of his investigation was to show, as he expresses it,\* "that the common and essential element in the Intelligences wholly coincides with the common and essential element in the Sensory Functions"; or, in other words, that there is a factor, having a determinate value in the case of every individual, which manifests its presence over a range of human performances stretching from the simplest kinds of sensory discrimination to the most complicated forms of intellectual activity. Subsequent researches, published and unpublished, to which other psychologists have made important contributions, confirm this conclusion. Incidentally the later investigations have explored and defined more fully the field over which it holds good. Thus the power to add up numbers correctly, to reproduce simple patterns exposed for a short time, to bisect spatial intervals, to hit a spot that appears in an unforeseen place, the tendency to yield to certain forms

respect of these are all correlated to a degree that proves the presence of an identical central factor. Moreover, with these performances, as in the case which we have discussed above, the correlation improves the more often the exercises are repeated by the members of the group. This proves that practice, so far from obliterating the differences between individuals in respect of a given performance, actually tends to fix those differences at the values which express most accurately in each case the factor of "general ability."

But while it must be accepted as proved that this factor of general ability enters into all performances that involve a certain complication of sensory or intellectual functioning, yet it is equally certain that there are, so to speak, local factors that combine with the general factor to determine the character of our performances at different points in the field of human activity. In the absence of these factors the correlation between the performances would, of course, be much higher, and we may in any given case regard its actual value as indicating the relative importance of the general and local factors. In a discussion (in his first paper) of the greatest interest and importance to the teacher, Dr. Spearman has attempted to arrange the subjects of the school curriculum in a "hierarchy" in which the higher places are assigned to the subjects that involve more of the general and less of the local factor. His results are not given here partly because the reader should be encouraged to acquaint himself with Dr. Spearman's own treatment of them, and partly because the writer suspects that the true value of the results can hardly be determined until they have been compared with a wider range of data. It may be possible at a later moment to invite the co-operation of readers of this journal in collecting and treating such data.

## EUGENICS AND THE SCHOOL.

### I.—BIOLOGICAL.

By DR. J. W. SLAUGHTER.

Eugenics is defined in the minutes of the Senate of the University of London as "the study of agencies under social control that may improve or impair the racial qualities of future generations either physically or mentally." It being thus admitted into the sacred fellowship of academic sciences one may consider that nothing more is required for its full and final establishment except the sanction of the public. The usual method of obtaining this sanction is, of course, the utilisation of the Press, but since for special reasons it is desirable that the subject should be understood as well as sanctioned, the only serviceable method is to obtain the interest and assistance of teachers. The science in reality defines a new department of education which differs from the other departments chiefly by reason of the fact that it has some more definite relation to future good. How it is to be taught constitutes the unenvied task of the second part of this paper, the concern here is to ascertain what it is.

At first sight the definition appears to emphasise the well-worn precepts about the social environment, slums and housing, medical inspection, charity organisation, education and all the rest. The present time is greatly under the domination of the environmental psychosis which assists its rule by such sentimental expressions as "social reform" and "humanitarianism." In this atmosphere the scientist is unwelcome and will be for some time unpopular, but he knows well that to be kept in palaces and given superior educational opportunities will not make super-men of the feeble-minded. The distinction in the definition is to be found in the term

nature rather than nurture. No criticism is intended of environmental improvements but merely of the belief that they can accomplish everything. It is admittedly better to destroy disease like cholera than to pay the price of gaining biological immunity from it. But it is necessary to understand the limits of nurture. A person's growth in height, for example, may be retarded or arrested through defective nurture, but the maximum of growth under the best conditions is determined by heredity. No assemblage of medical inspectors can by taking thought add a cubit to the natural stature; this, however, the biologist, if given power, can accomplish. The illustration used is absurdly simple, but applies with equal force to all other characters, physical and mental. The day is past for vague talk about "infinite capacity," "unlimited power of learning," and so on; plasticity is, as a matter of fact, strictly limited, and one's mental growth is very slight after the age of twenty-five or thirty. To obtain this maximum let it be understood that the best of educational agencies are required; what is now known further is that it is possible to add to this maximum of mental or moral character. It is clear, then, that growth does not affect capacity for growth; a man's actual height may be maximal or arrested, it makes no difference to his child's possibility. The blacksmith has, through use, developed a large arm—his child will have no greater initial advantage on this account. These facts are described in biological language by saying that use characters are not inherited or, as more frequently stated, acquired characters are not transmissible. This depends upon the fact that the germ plasma is differentiated early in life and from that time on the body, or soma which it produced, is only its place of residence and without power to affect it except through certain poisons. The problem of race improvement now begins to state itself; it is as to how the germ plasma can be affected in the interests of the race.

It is not to be understood from the above that

same dead level, but merely that any departure from this dead level of organic quality cannot be achieved by any of the methods of use or culture. In every species the individuals will be found to depart in some degree, and in every direction, from the ancestral type. Evolution from the simplest forms up to man has been achieved by a certain premium called survival value being placed upon these variations. The testing of survival values is called natural selection. Selection of the fittest means no more than the survival of those who prove successful in competition for the food supply. Those whose variations are disadvantageous are either starved or have no opportunity to reproduce their kind. Another kind of selection, known as artificial, is familiar in the art of the breeder. Here the operation is of precisely the same kind as with natural selection, except that for the fitness required for survival in nature is substituted the desire of a superior being. When the breeder has decided upon the standard to which he means to approximate, he produces a large number of individuals of the variety nearest to it and from these picks out those whose variations are in the direction of the standard and eliminates the rest. Those selected are mated together and from the offspring a second selection takes place. The process is carried on over a number of generations until the result is what the breeder desires. By these means were produced all the kinds of domesticated animals and plants; the most ignorant of farmers wants to know the stock or pedigree of a particular specimen, well knowing that this is the thing most to be counted upon. Many educated people, who are presumably enlightened, are incapable of understanding that these simple organic processes apply to human beings as well as to any other species in nature.

It is sometimes contended that interference is undesirable in the case of human beings because there is no one of sufficiently superior intelligence to play the part of breeder and set standards of ultimate human excellence. The obvious reply to this is that standards

of excellence undoubtedly change in their evolution like everything else, but that in so far as one can be conceived it should forthwith be applied. Such objectors are, as a rule, so ignorant as to suppose that there is no selection going on; that the racial stock is as good as ever; and faces no danger in the future. This sort of self-complacency is hardly to be expected from those who pretend to have at heart the interest of the race; they should at least ascertain the facts, and these indicate that the nations of Europe and America are on an inclined plane tending downwards; that the birth-rate of superior stocks is always decreasing while that of undesirables is always rising. The result is a matter of arithmetic. In the interest of a weakly humanitarianism everything has been done for a generation to facilitate the breeding of degenerates—the ultimate consequences one dislikes to contemplate. It may well be asked, then, what is to be done. The pressing matter just now is the spread of knowledge. Those who think that mating is, and should be, a matter of uncomplicated spontaneous affection should learn that this is one of the most controlled of human activities. In addition to the varieties of the marriage institutions discoverable in the past and in other countries, one finds a multitude of conditions determining it at present, such as race, creed, class and economic position. Most of these are non-eugenic factors. It must be taught that the fate of children, in all essential ways, is sealed by mating, and that children of good stock need entail small care as to their future. Could a fraction of the responsibility felt by parents for children already born be transferred to ante-mating days the race would soon reach a higher level. As to standards, these establish themselves; one knows health, ability and moral quality in practice and one easily recognises the obverse of these. What is required is a realisation of a new kind of responsibility which may be called biological, which brings home one's duty to his personal descendants, brings also the understanding that the present race of men contains within itself the count-

less generations of the future, and teaches that the act of mating is not a small and selfish thing, but has consequences to the remotest time and its bearing upon national and racial destiny.

## II.—EDUCATIONAL.

By MR. JOHN RUSSELL

(Headmaster of the Hampstead School of the King Alfred School Society).

Dr. Slaughter writes as a biologist. I write as a schoolmaster. I address myself to schoolmasters and mistresses of all ages and of all standings; and I plead for their goodwill and good offices in this difficult bit of education. Education, because education fosters the growth of the whole child into the whole man or the whole woman; difficult, because we have been taught that it is unbecoming to talk openly of the sovereign element in human life and the ruling factor in human progress. Sex and the sex-relation, like most other human matters, have their personal and their social aspects. Open discussion of sex-personalities is an outrageous intrusion; open discussion of sex-socialities (if I may venture on such a word) is, in the opinion of many thinkers, one of the most pressing needs of our time.

I do not forget that the schoolmaster is only one of many influences in the education of a child. School, in the biggest sense, is the total environment; and teachers, in the biggest sense, include every element of human intercourse (to say nothing of non-human) from the rough-and-ready practice of home and school and shop to the elaborated idealism of pulpit, press and parliament. We are such stuff as the world makes of us. And as the world makes our environment, so the world has made our heredity, inasmuch as heredity is but the ultimate outcome of a long series of adaptations. Every new-born child is "heir to all the ages," and every man and woman by every act however trivial, by every

But what in this grave matter is the schoolmaster's opportunity? What is his duty? Those are questions that cannot be answered until the ground has been cleared a little.

What is the modern gospel of sex? The gospel has been expressed in many different ways, but is not the modern view in effect this: that sex is the dominating factor in human relationship, not only as between boys and girls and men and women to-day, but as between this generation and succeeding generations; that sex is as clean, as worthy, and as beautiful as any other element in human life; that to be redeemed from its present false and degraded position, its true claims must be frankly recognised, frankly set forth, and frankly urged; that there must no longer be different standards of sex and morality for men and women, and that the sowing of "wild oats" must not only not be tolerated, but branded as a criminal vice.

That is the modern view as I understand it, and that is the view I share.

It is no part of my present duty to defend it. I merely state it and proceed to consider what follows from it.

It follows, in the first place, that those of us who hold the view, whoever we are, should do our best to make our own individual lives square with it. Especially must we have the courage to speak out whenever the opportunity offers. Every boy or girl going out into life, every love-episode among our acquaintances, every engagement, every marriage, every birth will almost certainly present such an opportunity. And it will then be our part, not to preach superior sermons, but to make sure that the bearing of sex on human happiness is recognised, and especially that the claims of unborn children are more fully realised.

That seems to me to be our duty, whoever we are. As parents we have a more special duty, and as schoolmasters perhaps—things being as they are—a more



As parents we have first to speak the truth—in sex as in all else. If our children are to grow into reverence for nature, for life, then they must begin at the beginning. I can conceive no more arresting thought for a little child, nothing more calculated to touch its imagination, than the knowledge that a baby is a part of its parents, is created by the love for each other of its father and mother. In spite of the million daily mockeries of love, I say that that root-fact alone, driven wisely home, should tend to sanctify life, human and animal, to redeem love, to redeem womanhood, to redeem man. I hold that opinion, I say, in spite of the prevalent mockeries of love. I believe in the uplifting power of sex-knowledge because I believe in the uplifting power of all essential knowledge. But I also hold that opinion *because* of those mockeries. If the knowledge is not communicated in love and reverence, it will be communicated in lust and ribaldry—with the consequences we know. Comparatively few escape. And only those who have escaped would question the truth of what I say.

The great mass of parents have, I know, realised that even a little child cannot live by bread alone. But though they have spared no pains to furnish spiritual fare, they have neglected, in thoughtlessness or in fear, the element (as it seems to me) of highest worth.

The fear is craven, treacherous, like all fear of truth. And it can only spring from an infidelity—the sense that, after all, sex is an unholy thing, or from a false modesty, which is at bottom an infidelity.

But parents must not only speak reverent truth themselves, they must safeguard their children both from falsehood and irreverence. Servants, playmates, well-meaning but old-notioned relations, chance companions of all sorts, books, may all be a source of danger. I do not ask parents to be Paul Prys or popes. There is no infallible method. I only remind them of the immense influence of environment, and urge as much circum-

in any other matter that pertains to human well-being. Lastly, when the child, boy or girl, goes forth to school, especially to boarding-school, there should be outspoken warning against the sex-irreverence and sex-temptations that few schools are free from, and an earnest appeal for the child's absolute confidence in this gravest of all dangers. Based on familiar knowledge and a childhood of mutual trust, no such appeal could (it seems to me) be in vain.

Such—in a few sentences—is the duty of parents. With that duty well done, the task of the schoolmaster would be simple enough. The boy or girl would come to him knowing the fundamental law of sex, realising the far-reaching consequences of marriage and child-making, and—so far as youth is capable of reverence for anything—in a reverent attitude of mind. That right spirit it would be his chief duty to utilise and to foster. In all his administration of practical justice (perhaps our hardest task), in all his exposition of ideal justice, in all the story of human relations past, present, and to come, he would be free to show how sex plays an honourable or dishonourable part, helps or hinders true progress, true happiness, and he would turn all such exposition to highest account by using it to illumine and strengthen his appeal for the good life—an appeal we must all of us make, I suppose, in our several ways, if we are schoolmasters worthy of the name.

Perhaps no two of us would define the good life in quite the same way. But whatever it may not include, no sane, honest thinker can deny that it must at least cover a noble ideal of sex-relations, of the mutual duties of man and woman, and a steady control of the sex-impulse in the interest alike of one's self, one's neighbours, and one's descendants.

Our task as schoolmasters, I say, would be a comparatively easy one if the home did its duty. But the home seldom does its duty. What then? Well, then our task becomes immensely difficult, and for two

by the methods of evil communication; second, because any action we may take, either general or individual, must be taken in the teeth of public opinion. That will be true whatever our school—primary or secondary, private or public, day or boarding, for boys or for girls.

Open reference in class to sex and its bearing on life, never, from force of our habit of thought, quite easy, becomes a much more delicate task when there is reason to think that a large number of the class will not only be excited to a high degree of prurient curiosity, but will also perhaps speak of the teacher's frankness as dirty beastliness. That is a very real danger, but it is a danger which, in my opinion, has to be faced. Nobody yet knows precisely how souls, young or old, are effectively touched to finer issues, but this, at least, is certain, (is it not?) that those finer issues are not spontaneously generated, that the soul must in some way or another be touched, and that the supreme art is to touch it. And so I hold that the great task of education is to ensure the sympathetic presentation to the child of life in its nobler aspects (the ignoble will look after themselves). Of these nobler aspects the true school will neglect none—whether it be the nature and uses of health, of knowledge, of work, of money, of friendship, of sex, of love, or of right conduct. I do not ask you to teach the detailed physiology of sex or the detailed metaphysics of goodness. I ask only that in your systematic presentation of life to your children you do not omit these essential facts—that one of the chief purposes of our lives is to produce other lives, that the production of those other lives occasions the most intimate relation, the most intimate collaboration, of men and women, that the chief agents of production are our bodies, and that the physical and spiritual quality of the new lives produced will depend almost entirely upon the physical and spiritual quality of the bodies that produce them. From new lives to new generations is an easy step, and so to the future of England and of the world.

Those facts I should not hesitate to refer to in any class of boys, however unpromising the material (they

that are sick need the physician most, we are told), and I should expect by dint of patience and persistence, backed perhaps by some personal appeal, to produce much wholesome effect. Girls I should wish to be treated in the same way. Mixed classes, when the ground is unprepared—or misprepared—are more difficult. Personally I expect much good to come out of the frank mixing of boys and girls—co-education, as we clumsily call it—and would, if I had my heart's desire, turn every school in the land into a mixed school tomorrow (from the starvelings of East and West London to the princelings of Eton and Harrow) but until the ground has been a little better prepared, there must, I feel, be some difficulty in talking frankly to mixed classes. But even there the sex-relation must be openly honoured, and not hidden away in shame or anger, or—what is almost as harmful—made a subject of joke and jest. There need be little talk of sex-love with young people, but when there is talk, let it, in the name of the highest and best of human aspiration, be serious and sympathetic.

A sympathetic attitude in teachers towards the whole subject, and readiness to take advantage of every opportunity that offers for elucidation and appeal, would indeed almost sum up my demand. Such opportunities will occur again and again in literature and history lessons, and especially in civics and nature study. I cannot draft a scheme for such incidental reference any more than I can draft a scheme for the gradual presentation of sex-knowledge and sex-ethics. A good many books have been written about it, and some of them will help some of us, and others others, but, personally, I should always trust chiefly to my own sense that I was upon holy ground, and to my own instinctive method of approach. A formal scheme for wooing the man or woman you love would seem to me no greater a futility and no greater an impertinence.

So far I have been thinking chiefly of public reference in class to the principles underlying the Eugenic ideal. There remains the question of private talks with indi-

vidual children. One or two schoolmasters of my acquaintance have such a talk with everybody who comes to them as part of the regular routine of admission to the school. The law of sex is explained, the temptations of school life are described, and an appeal is made for purity of thought, word, and act. One of those men assures me, after a good many years of recorded experience, that he has almost purged his school (about one hundred boarders) of uncleanness, and further that he has had from his old boys many warm expressions of gratitude. Whether he has done any harm I do not know. Nor, I think, does he. But the risk must be taken. Dangerous situations call for dangerous remedies. The operating knife often kills. The rescuer is often drowned.

Some such plan is, I think, not only useful, but essential. I should, however, stipulate that in the great majority of cases it should only be carried out with the consent of individual parents.

Just as the consensus of public opinion still asks us to respect the parental conscience in religion, so it will ask respect from us in this equally fundamental element of soul-culture. For the present that respect must be paid. Some day, when conscience is no longer adulterated, all conscience clauses will be withdrawn, and honest practitioners will be free.

But besides this wholesale method of dealing with individuals, there is also the occasional method—the method, that is, of speaking home-truths whenever opportunity serves. However tongue-tied we may find ourselves in the apparent absence of sex-danger, there can be no excuse for silence in its evident presence. Obscenity and pruriency, in one form or another, are the badge, at one time or another, of most boys (and most men) and the source of a thousand ills. To grapple with them courageously, vigilantly, patiently, and not unwisely, is a task that taxes the schoolmaster's highest powers—a task, moreover, that will never be effectively fulfilled until leagued in its service is every individual and national force that makes for righteousness.

## THOUGHT, POETRY AND MUSIC: A STUDY IN CORRELATION.

By A. A. COCK (King's College, Strand).

This paper is a brief *abstract* of an actual piece of work which, in so far as it may suggest analytical or constructive criticism of the scheme and its execution, should not be without interest to the reader and help to the author.

Behind the title lie three pre-suppositions which have sanctioned the experiment.

First, that it is the business of Thought to give system, synthesis and explanation to problems suggested by Experience, though not necessarily to Experience itself. Second, that Poetry and the works of Poetry are the necessary syntheses of experience, not formally systematised, and not pretending to be explanations but rather inspirations; in short, that poetry is not a "criticism of life" but the necessary outcome of life at a certain pitch. Third, that Music, in so far as it is untrammelled by differing tongues, is of wider appeal than poetry, but like it, is also a necessary outcome of experience.

Upon these bases an experiment has been made. It was naturally threefold, too. Briefly, the attempt has been to see whether and how far a mixed audience would be ready and receptive enough, (1) to study poetry for its own sake, without any external inducements or pressure whatsoever; (2) to realise that beneath poetry is Experience, about which, in some way, every man thinks, and forms a philosophy; and (3) to appreciate the fact that in Music, schools of thought and form are alike represented and given new presentations—from experience also.

If these three things could be achieved, something would be done—not easy to measure, but still positive—

to co-ordinate interests and trains of thought too often isolated, neglected, or unperceived. For neither should poetry be the sport of the ignorant, nor music the whim of the sentimental.

The experiment was carried out during a period of three years with a class that met once or twice weekly in the evenings. It was of both sexes, of very varying ages, occupations and training. The majority had had little but a primary school education, but some were themselves teachers, others prosperous clerks, others postulants for various denominational ministries, while at least two aspired to be poets. The material was, therefore, rich in variety, if not in promise.

It was not at first easy to formulate a procedure which should explicitly fulfil the objects in view, and to a large extent it was left to the needs and experiences of one meeting to suggest method for the next; but inasmuch as the first task—that relating to poetry—is by common consent one of the most difficult, that was begun first, and music deferred until an opportunity arose. In order to mark out the province of Thought more explicitly, it became evident that poetry alone would be too inchoate and so the approach to philosophy had to be made through problems suggested by grammar.

Direct exposition was only given after the pupils had themselves wrestled with the matter in hand and in response to enquiry.

Illustrations therefore follow :—

(1) *Poetry*.—(A) There is no royal road in making poetry an object of desire to people, but for such as were under instruction it seemed best to begin with lyrics, and with lyrics of childhood first. For the mass of people live more habitually according to the heart than to the head, and to the mass also nothing appeals more immediately and innocently than the child. The work accordingly began with a study of a few of the child lyrics of Wordsworth, Patmore, Blake and Francis Thompson. An intensive and comparative treatment

was pursued. Generally two or, perhaps, three, short poems, by at least two different authors, were read and discussed. It was an axiom that poets (those studied, at least) never wrote except upon experience, and the students were therefore encouraged and required to compare their own experience with those recorded in the poems. One result of this was to convince them that the poet's message and inspiration differ from their own not so much in kind as in intensity.

“When from the common sands  
Of poorest common speech of common day  
Thine accents sift the golden musics out—  
Then, ah! we poets, I misdoubt,  
Are little more than thou!  
We speak a lesson taught we know not how,  
And what it is that from us flows  
The hearer better than the utterer knows.”

—*Francis Thompson*.

Incidentally, these little lyrics brought forth, as factors in experience and the recording of experience, Simplicity and Wonder.

Simplicity and Wonder hence became points of view in subsequent enquiries: for Simplicity is seeing things whole and Philosophy is the pursuit of the vision of wholeness.

It was not long, however, before discussion made it clear that, in these poems not only were there the “things” of experience, the facts seen, the children observed, but that there were also “ideal additions” from the poet's own thought and feeling—additions which were in the nature of an hypothesis, which were, that is, interpretations of Experience. Nevertheless, that the essential beauty might not be destroyed, no detailed analysis of the two elements was here attempted, but only a general observation as to type. In this way the derivation of poetry from Thought and Feeling in Experience was seen, and since they were related, a more systematic enquiry into the latter became necessary for the future.



(B) Having prepared the theme of Man in Poetry, its further development was postponed until, in turn, Nature poetry had been considered. Nature lyrics such as the mediæval—

“Sumer is icumen in  
Lhude sing cuccu!”

numerous Shakespearean songs, lilt from Herrick and other Cavalier poets, eighteenth century efforts, “Pipings from the valleys wild” of Blake, romantic outbursts, and lyrics from Tennyson, Browning, the Rossettis and Francis Thompson provided the “things”—the material. The same treatment was pursued, but this time it appeared that the nature of the “ideal addition” to the primary facts in part determined the style and form, and thus a double classification arose, which in turn furnished problems for Thought and the evidences of Law. For the styles were seen to be differentiated by the artist’s mode of presenting imagery and figure. So, for the time being, Classical and Romantic were adopted as convenient names and an approximate standard for future determination of type was at hand. Moreover, since the “ideal addition” or interpretation varied, a second classification became necessary, that is, these Nature lyrics were seen to be mainly objective, or mainly subjective, Realistic or Symbolical. Thus Cowper stood for the former, Ossian for the latter and Wordsworth for the combined type, and so on.

But this distinction between Objective and Subjective, Exterior and Interior, Tangible and Symbolical was itself matter for Thought. It was a case of mood, of temperament, creed. Thus a further realization of the scope of Philosophy and of its implications in Poetry was achieved. The poet was not only a seer but a seeker too.

(C) So equipped, the further poetry of Man could be studied. The full-grown man—as seen in Shakespeare’s sonnets—was the object of enquiry. The manifold problems thus raised, it is unnecessary to enumerate

but their scope may be indicated. For, as the sonnets and other poems, such as “Rabbi Ben Ezra,” “Uphill,” “The Hound of Heaven,” were studied, it became more and more clear that there are three and three only distinct facts in life about which poets write and people enquire: Nature, Man, and God, and though Theology cannot produce poetry, yet Religion can and does, and from the Poet as a “Religious,” in this experiment it was impossible to escape. The simplest example given was Pippa’s song in “Pippa Passes”—

“The year’s at the Spring,  
And day’s at the morn,  
Morning’s at seven,  
The hill-side’s dew-pearled,  
The lark’s on the wing,  
The snail’s on the thorn,  
God’s in His heaven!  
All’s right with the world!”

The most elementary student saw in these simple lines the recognition of nature, the sense of time, the perception of beauty, a judgment on life, an act of faith, and an assenting sense of wholeness. Here, indeed, was a perfect synthesis.

(2) *Thought*.—Yet, if in poetry Thought could be taken as only implicit in the various interpretations present by inspiration, in grammar it was clear that Philosophy is more explicit. The direct correlation of these arose when a spontaneous enquiry was made as to the definitions of a noun and a sentence. The current versions were so obviously unsatisfactory that a real attempt to get at the nature of names had to be made. Certain skirmishes in logic consequently followed. A sentence or a proposition was seen to represent both an analytic and a synthetic process. The pathological analyst became more interested in definition and classification, the Kindergarten teacher drew Euler’s diagrams in colour and the newspaper readers became critical of the halfpenny press. Even then the quest for the mean-

ing of names was not at an end. Had a name a meaning apart from the object to which it was attached? If not, was the existence of a name some guarantee of the reality of the object? If so, was this a help to theism; if some adjectives such as "perfect," "whole," and the like, could not be compared, what did this imply? "If perfect and absolute were in the understanding alone, then they could be further conceived to be also in reality, which would be a greater (or better) thing. Therefore, if that than which no greater (or better) can be conceived, were only in the understanding, there would still be something better, which is impossible. Something, therefore, without doubt, exists, than which no greater can be conceived and it is both in the understanding and in reality."\* So nouns and the comparison of adjectives had led to the famous proof of the existence of God in the "quo nihil majus cogitari potest" of St. Anselm, and it was not without reason that henceforth our students were eager that History too should be correlated with their work.

The further implications of Poetry were now ready for consideration. The old poems were re-considered. In "Rabbi Ben Ezra" were found questions of ethics, of teleology, and the case for optimism; in the "Hound of Heaven" was seen the modern individual in relation to Nature, Man and God, and the same poem formed part of a comparison with a like poem by St. John of the Cross (1542-1596), while data as to the nature of reality and the problems of pain and immortality were collected from sources as different as Blake and Tennyson, Hawker and Browning. Occasional enquiry as to poetry and science was made of Keats.

Students who had come to St. Anselm's argument from Being, through formal grammar, who had referred back the "Hound of Heaven" to its prototype in sixteenth century Spain, were also ready to perceive the community of thought in other poetry than English. St. Francis' "Canticle of the Sun" was read to illustrate

\* St. Anselm, quoted in *Literature of Theism*.—Caldecott & Mackintosh.

Nature poetry still further, and it was seen that he who trod the Umbrian hills with song, by Song communed with birds and sun. Comparison with the Hebrew "Benedicite Omnia Opera" naturally followed, so that, later, reference to the Hebrew literary type was possible.

Yet another approach to Thought through poetry may be illustrated. Everyone, in a somewhat sentimental sort of way, had heard of Tennyson and the "Idylls of the King," at any rate, as far as—

"More things are wrought by prayer than this world  
dreams of."

But not everyone had realized the significance of the Grail theme, of its persistence through the Ages, of its attraction for English poets, of its deep symbolism in Hawker of Morwenstow. We turned accordingly to the author of the Trelawny ballad. In the "Quest of the San Graal" we saw how the theme had caught a true poet's heart and ear. It meant something to him. It signified spiritual experience to him as to Wagner. No wonder his chant bore a message impossible to Tennyson:—

"Ho! for the San Graal! vanished vase of God!  
That held, like Christ's own heart, an hin of blood!  
                    Ah, sirs, had we been there  
They durst not have essayed their felon deed!  
Ho! for the San Graal! vanished vase of God!"

Here, indeed, was room for correlation. This was the song German Meister-singers had sung from hall to hall competing.

So we listened awhile to Wolfram von Eschenbach's "Parsival."\* Then to musical motives from "Parsifal" and again to Hawker and Tennyson. Could a theme which had so lived be meaningless to Thought? Were poet, musician and artist, all alike, but dreaming? Had their work and this theme no significance to us?

"Ah! England, wake thine ancient cry,  
Ho! for the San Graal! vanished vase of God!"

\* Miss Weston's Translation, *David Nutt*.

The work thus carried on had so far made two things clear. Poetry could give pleasure for its own sake, for its music and its form; but more than that, Poetry, in so far as it contains inspired syntheses of experience was seen to be indissolubly connected with Thought. And since both Poetry and Thought were part of Life our students responded in practical ways. The well-to-do bought books, Hawker, Wordsworth, the "Fioretti;" the poor borrowed them. The Quaker and the Wesleyan sought of themselves further guidance, and reconstructed their studies for the Adult School or Sunday Class. The poet and the poetess pondered these things and for awhile kept them in their hearts.

(3) *Music*.—The work hitherto described has been spread over three years, but the experiment in making Music one of the three studies has only been made during the last fifteen months. The first thing to be done was to see whether music really did anything more than provide sensations of sound for this average audience, an audience which, having heard something of mediæval cycles of romance, was expectant in the matter of their expression in music.

"What? those lesser thirds so plaintive, sixths diminished,  
sigh on sigh  
Told them something? Those suspensions, those solutions  
—'Must we die?'  
Those commiserating sevenths—'Life might last!' We can  
but try!"

The range of poetical subjects that may be treated musically, however, is so great that selection was a matter of some difficulty. Hymn, psalm, lyric light and serious, ballad and drama have all received such treatment. And the trial is justified when we remember not only the community of origin of poetry and music, but the further fact that the force of the idea is not weakened but strengthened by an appropriate musical form.

Thus, as Hamlet from his first inability to act decisively gradually feels a crippling of his own personality

and consequently views life as sadly and pitiably as himself, so in Wagner's "Ring of the Nibelungs" a similar change takes place in the character of the God Wotan. Now this change is most powerfully signified in the music. The dignity and solemn power of the god receives solemn and dignified expression in a motive which is never far away in the whole work. But when Wotan's freedom is fettered by an unlucky treaty with the Giant builders of Valhalla, then the same motive reappears with discordant notes to correspond, while finally at the point where the guilty god determines to abide by his sin, the same motive changes from dignity to distress. Wagner thus gave to the Nibelungenlied an allegorical and spiritual significance open to all with ears to hear.

Clearly, however, the intricacies of such music could not be unravelled at this stage of the experiment, although it was bound to come later, in the proof that Music represents Experience.

Yet our choice remained with Wagner because not only would he furnish us with dramatic music but also with music of human passion, music of confession, music of worship and music of nature.

As in poetry the work had begun with the primitive and elemental motive of the child, so here in music it began with the motive of primitive creation and the Children of the Rhine.

In order to obtain, as far as possible, true records of the effect, it was decided to say nothing at all about the two pieces to be played, but every student was asked to listen attentively and to write down or say at the end what impressions had been produced.

The prelude to Act I. of the "Rhine Gold" was first played. This is a movement beginning in the base on a long-prolonged E flat, designed to represent the simplicity of primitive creation. Gradually this passes into a little melody in the treble, from which develops the wave-witching music of the Rhine Maidens. Finally, beneath the waves the far off music sinks.

When notes were compared as to the impression

created two things became clear—first, that those impressions were of a distinctly simple character, and secondly, that there was a striking unanimity in the statements made. These were generally in the form of such words as “laughing,” “playing,” “dancing,” and “rejoicing.” At least a third were unable to record anything.

The second piece played on the same occasion was the Valhalla music from Scene II. of the “Rhine Gold.” Wagner’s stage directions for this clearly indicate that it is essentially pageant music intended to represent the stately home of the gods; but it is particularly noticeable that when repeated immediately after its first occurrence, a subtle change takes place. In the last few bars a transition is made from G flat to D flat and the new note struck, C flat, entirely changes the character of the piece and foreshadows the impending ruin of the gods.

This piece was much more productive of results than the first.

The number of those in whom no response was awakened was much smaller. The majority had made notes of the effect. These showed that they were filled with a sense of pictures or of visions of (a) “immense cloisters, (b) vast arches, (c) cathedral greatness, (d) dawn, (e) intercession.” Those to whom the music is familiar will see that while no student had perceived the full significance of the music, yet the elements thereof were recognized separately and individually.

Browning was right therefore. Music could “tell them something.” This was no mean step forward, because these people were at first by no means sure that there was anything so definite in music. Many possibilities accordingly opened out. The sonnet and sonata were, in a measure, comparable, so were Shakespearian tragedy and a tone drama. Ballads and tales of the men of old had their counterpart in folk music, whose history is equally ancient. Of this there is, of course, great store. The simple joyousness of the folk was easily illustrated from the once despised old English songs;

the Teutonic “sense of otherness,” from certain German composers. In all these cases, just as the greatest poetry depends in no small degree upon its passionate rhythm, so in music the melody and harmony strengthen the dominant idea.

“Hark! the dominant’s insistence, till it must be answered to!  
So an octave struck the answer . . . . .  
But when I sit down to reason, think to take my stand nor  
swerve,  
While I triumph o’er a secret wrung from Nature’s close  
reserve,  
In you come with your cold music, till I creep through  
ev’ry nerve.”

Having thus established a relation between music and visualisation, and also a comparison of themes and forms it remained to test the effect of such music as is definitely the outcome of subjective experience, which does more than visualise, which contains ideal additions, which interprets.

Among certain poets the term “Night” is used in a sense symbolical. Was there in music a form of like kind? If so, did it proceed from similar moods; and again, if so, what were they?

For answer we turned to a well known Nocturne in G minor.

The significance of this work is unmistakable. The opening “andante sostenuto” witnesses to a struggle with pessimism and unutterable longing and despair, in which again and again the note of an overwrought soul is heard. There succeeds to this—in the depths of the bass only, a religioso movement whose chastened optimism and “sense of otherness” are in striking contrast to the opening. Not for long, however, for towards the end of this passage the earlier mood reasserts itself and after a struggle indicated in the music by a long pause, the minor key triumphs, despair wins, and the Nocturne closes as it began, longing for a lost Providence.

This piece was played as usual, without comments or introduction. The effect was significant. All agreed



that there was a search for something or other in the first movement, a finding in the second, and a loss in the third. Some used the terms Faith and Despair, a few suggested Love and Rebellion, one the sense of the Presence and Absence of God. There was no hesitation in regarding this Nocturne as the record of spiritual experience, an experience, or experiences, whose content was not so different from that recorded in the "Hound of Heaven."

A canon of moods was now established for Thought, Poetry and Music. By means of this the students were able approximately to determine the categories into which their authors fall, and further, to estimate in part their value for conduct, for Life.

After this, it was easy to treat other compositions in the same way, always leaving the students to record their own impressions. Following the historical development so excellently observed in the "Golden Treasury," some study has recently been given to the close association between Music and the Age. Thus, in a "Tantum ergo" of Palestrina may be seen the classic severity of the Counter-Reformation; in Purcell, the light innocence of Cavalier poetry at its best; in Beethoven, Wordsworth without words; in Schubert, the romantic "renaissance of wonder;" in Wagner, as in Francis Thompson, through laughter, tears and thought, all the characteristic movements of the nineteenth century symbolised. Here, so far, the work ends and this paper may, therefore, conclude with some account of its results.

As has been said, these are not easy to measure or to summarise. They vary exceedingly. Bearing in mind, however, the type of student, the first result to notice is that the majority have been persistent through the greater part of three years. Though not naturally book-lovers or buyers they have become buyers and lovers of poetry. That the correlation with Thought holds them may, perhaps, be seen in the curious and spontaneous way in which almost all have applied the

poet's message and the musical suggestion, to their own needs. They have come spontaneously and constantly for advice:—The Quaker on the application of poetry to Adult Sunday Schools, the missionary candidate on modern apologetics, the perturbed on the Thought in New Theology, the teacher on poetry and the daily round.

But the most interesting results of all have been in connexion with the two verse writers.

"Please, I'm a poet!" Thus a student addressed me eighteen months ago. "And have you a class for poets?" With that she presented a stout manuscript book. With courage and assurance she stood, with courage I read. To-day I read with some assurance. From doggerel of a feeble kind, through the rigours of criticism, she has passed to children's lyrics. Little snatches of song fall from her in showers. One such, a cradle song, we sent to the organist of St. Margaret's, Westminster, whose recitals she regularly attends. It has received fit and full expression in music and now awaits the verdict of the publisher. This poet is over thirty.

Still more promising is he who occupies a very humble position in a Government Dockyard. Finding himself not rejected for the class, he too produced stanzas long and many. With him the work has been not so much to introduce form as to improve it and introduce Thought. This has been done by means of various poets studied and with the consequent intellectual widening, his work has made great strides until now it is always melodious, generally simple and often delicately suggestive. The following is typical and surely ll. 9-10 deserve our praise?

"When some friendly breeze is bringing  
Tidings of the blue bells swinging,  
Then come Nature's children singing  
What I cannot put in words.

"When the trees exchange their greeting,  
Leaf with leaf, together meeting,  
Wakes a melody, in keeping  
With the chorus of the birds.

"When through tears fond April glances,  
Joys to weep o'er newborn branches,  
Then my very being dances  
To the music of the showers.

"When delightful May's pursuing  
Her sweet course, and doves are cooing  
Then my happy heart goes wooing,  
Goes a-wooing all the flowers."

The spirit in which this man writes is of the happiest kind. He knows that publication or even a private audience for his muse is hard to find, and yet to Nature, child, and wife, he still will sing: and so, for his sake, let me quote a few more stanzas of his:—

#### FALLEN LEAVES.

"Dead! did we hear you say?  
We are not dead,  
Although our frail forms may  
Be withered.

"E'en though loud Autumn dare  
To place us here,  
In stern old Winter's care,  
We do not fear;

"For when this hallow'd bower  
Rings with refrain  
Of Spring, and bird and flower  
Come back again,

"We too shall deck that scene  
'Neath brighter skies,  
And clad in fairer sheen,  
We shall arise!"

Has this experiment been justified? What is its depth? Has there been a risk of unsettlement or an advantageous "breaking up of constants"? How far are we sure that the perspective of the teacher is the perspective of the pupil? Have the younger pupils suffered to the advantage of the older? These are questions to be answered only by Time and the students themselves.

At any rate the work has been not only an experiment in correlation but a study in suggestion, and, says Mr.

Keatinge: "If the teacher makes it his first aim to see that the sub-consciousness of his pupil is a mind of meanings not always fully realised but felt as desirable and ready at any moment to develop into auto-suggestions, he will not only be a director but a creator of mind, a true producer of fundamental energy."\*

Philosophy for the plebeian? Yea. Music for the Philistines? Yea. And a school for poets? Why not?

"If Music and sweet Poetry agree—

As they must needs, the sister and the brother—  
Then must the love be great 'twixt thee and me,  
Because thou lovest the one and I the other.

Dowland to thee is dear, whose heavenly touch  
Upon the lute doth ravish human sense:

Spenser to me, whose deep conceit is such

As passing all conceit needs no defence:

Thou lovest to hear the sweet melodious sounds

That Phœbus' lute, the queen of music makes:

And I in deep delight am chiefly drowned

When as himself to singing he betakes.

One god is god of both, as poets feign

One knight loves both, and both in thee remain."

—R. Barnefield.

4. \* *Suggestion in Education*, p. 154.

## THE TEACHING OF TOM AND MAGGIE TULLIVER.

By CONSTANCE FOX (Southampton R.C. Training College).

Child study becomes every year more fruitful. It is encouraging to note its growing interest for students in training, their anxiety, for instance, to find in it explanations of their pupils' aptitudes. It is helpful and encouraging to receive their contributions of illustrations of points made in the teaching lectures, illustrations furnished by observations of nephews and nieces and young brothers and sisters, as well as of their pupils; illustrations furnished by books.

Someone says that people in books are the only people we ever really know. At least they are people we can very easily and very profitably study. They are the only ones whom we can regard quite impartially. And by the amount of revision our estimates of them need, on re-reading the book, we are able to measure our own progress.

I have met no more useful book for this purpose than *The Mill on the Floss*, with its group of representative children, Lucy, Philip and Bob—as well as Maggie and Tom Tulliver, who, in spite of their kinship, differ as widely from each other as from their playmates. Maggie is one of the few whom life educates, who are practically independent of teachers; Tom belongs to the large class for whom teachers may do much.

To Maggie the whole world was full of interest, vivified by her imagination and sympathy. The broad Floss, seen first by Tom's side with her hand in his, her earliest memory; their own playful sunny Ripple; the wonderful mysterious Round Pool, made long ago by the Floss in its anger, of unknown depth and age: all these had an interest and a fascination for Maggie quite outside their possibilities in play. In her thoughts, the meal-powdered

spiders in her father's mill saw their less fortunate fellow spiders, who lived outside, from something the same social plane as that from which the female Dodsons pityingly regarded the rest of the world. Strong as was her belief in Tom's wisdom, it did not bring her to such acceptance of his statement that worms could not feel as was involved in disregarding their, to her, eloquent wriggings, and putting them on his fishing-hook herself. Yap received her confidences because she felt that he shared her feelings. Thronging thoughts and emotions threw wide open the gates of speech and made her company a delight to her playmates. Her absence spoiled the visit to the toads in Uncle Pullet's garden for little Lucy Deane. Tom's undivided attentions were far from being an equivalent of the charm with which Maggie's imagination invested their adventures. Maggie would probably have found a name for the fat toad and outlined its history.

Maggie could teach herself. At eight years old she had deduced the meaning of "poly" from the use of "polysyllable" and "polygamy" in an English context. The appearance of the word "mas" twice in Tom's Latin exercise sets her speculating actively as to its meaning.

Maggie found the Latin grammar quite soothing after her mathematical defeat. She delighted in new words. These mysterious sentences, snatched from an unknown context—like strange horns of beasts and leaves of unknown plants from some far-off region—gave boundless scope to her imagination and were all the more fascinating because they were in a peculiar tongue of their own, which she might learn to interpret.

Facts to attach to a remembered name or statement gave her the satisfaction always felt in them, especially in youth, by an active mind, in which eagerness for extended knowledge is the usual accompaniment of impressions made ensuring its assimilation when it presents itself. We recognise the soundness of the method by which the teachers of Israel prepared their children for the lesson of the Divine help vouchsafed in

the crossing of the Jordan; we use such methods still, recognising their necessity with the majority of our pupils. If we think of the road we should probably travel with them to induce an interest, say, in the Romans, we shall realise the leap Maggie took, in her demand to know whether there was ever a people who said in Latin: "I would not buy it for a farthing or a rotten nut"; and realise also the admirable state of preparedness for the information she asked to which her speculations had brought her. Her questions brought Tom also to

A dim understanding of the fact that there had once been a people on earth so fortunate as to know Latin without learning it through the medium of the Eton Grammar.

She at once traces to its source her humiliating defeat by the theorem in Euclid with which Tom is wrestling at the time of her visit to Mr. Stelling. Hear Tom's comment on her explanation of it and then measure her with him:—

It's all the harder when you know what goes before; for then you've got to say what Definition 3 is and what Axiom V. is.

She generalises readily. Her experience of her mother and her aunts decides her that all women are cross. The case of the astronomer who hated women induces the hypothesis that all astronomers hate women. This she substantiates to her own satisfaction by her quick imagination of the hindrances to astronomy from the presence of a talking woman in a high tower—helped thereto, doubtless, by her observations of the female Dodsons.

No teachers are needed to awaken or to keep alive in her the sense of wonder. She responds to impressions of all kinds, generally with delight.

The world is so full of a number of things.

In her fishing expeditions with Tom, if Tom is pleased with her:—

There is nothing to mar her delight in the whispers and the dreamy silences, when she listened to the light, dipping sounds of the rising fish, and the gentle rustling, as if the willows and the reeds and the water had their happy whisperings also. Maggie thought it would make a very nice heaven, to sit by the pool always in that way.

Her pleasures and pains were far keener than Tom could ever know; and of them her quick imagination, never resting satisfied in the present, built for her a world,

Apparelled in celestial light,

where love and honour shone fairer and adventure more alluring than Tom's dim eyes could ever see them. The delight attending so many of her experiences explains her haste in action, her vivid imagination, her quick regret for the path passed by. Her demonstrative affection may be traced to her hunger for affection and sympathy; her hunger for admiration by her power of admiration. See her with Luke, her father's miller, attempting to enhance her dignity in his eyes by sharing with him her educational advantages. Note her persistent bidding for Mr. Stelling's admiration. And see the cloud of Tom's displeasure turn to night her sunniest day. Selfish, all this, unquestionably:—

She cared less that Tom should enjoy the utmost possible amount of jam-puff than that he should be pleased with her for giving him the best bit.

But a selfishness that looks up always, straining to reach heights seen by few, allured by mental and moral loveliness with a force that throws open every spring of effort, that will make possible the seemingly impossible, that will eventually find its sole satisfaction in service.

The most slothful teachers could not have prevented her world from educating Maggie. The gloom of the Valley of Humiliation, into which her father's misfortunes plunged them all, prepared her eyes for the purer light of those shining levels pointed to by the unseen



teacher in the pages of her "Imitation," and made his teaching maximally fruitful. Sooner or later some such teacher must have come: the world is full of such; even Maggie's world. It is idle, if interesting, to speculate how his earlier or later coming might have changed the course of her life. She heard his message clearly when he came:—

Forsake thyself; deny thyself.

And it gathered together all the precious fruit which the riches of her nature had borne to the wind-sown seeds of her childhood, and, in the hour of trial, made it impossible for her to snatch her happiness at the expense of others:—

She might as well hope to enjoy walking by maiming her feet, as hope to enjoy an existence in which she set out by maiming the faith and sympathy that were the best organs of her soul.

Maggie and Tom seem to stand at opposite poles in respect of teachability. It will be conceded that the majority of children approximate to Tom's type and that upon them the teacher's labours are most fruitfully expended.

Tom saw himself the centre of the world with an undisturbed conviction possible only to those whose world is small.

In very tender years, when he still wore a lace-border under his cap, he was often observed peeping through the bars of a gate and making minatory gestures with his small forefinger while he scolded the sheep with an inarticulate burr, intended to strike terror into their astonished minds; indicating thus early the desire for mastery over the inferior animals;

indicating, also, quicker recognition of inferiority than of superiority. An adoring mother, whose approval he never endangered by such escapades as discredited Maggie in her eyes; a sister no less adoring and with leisure for practical expression of her adoration; a schoolmaster whose accomplishments he could despise and play-fellows he could thrash: all helped him to bear

with complacency the occasional disapproval of his father. He was probably helped thereto, also, by the disparagement of his father by his mother's relatives. His creator hints that Tom considered Mr. Tulliver's best claim to respect to lie in the fact that he was his father.

It is probable that both children lost through the absence of a lovable and admirable personality on which to model themselves. It is amusing to notice how the news that Sir Henry Crake had learnt Latin shook Tom's estimate of the study of that language. Sir Henry Crake was a man whom Tom would have gladly resembled, imitation of whom seemed possible. The seeds of any qualities children can admire are certainly beginning to germinate in themselves. Contact with the personalities admired, the sunshine of admiration for them, help to bring the flowers to light. But while natures like Maggie's see their own virtues in others, generate themselves all that is necessary for flowers and fruit, Tom's eyes were held by his limitations. He could not despise Mr. Stelling, but saw in him no model for himself. And, except superficially, contact with him influenced him little, if at all, its confusion of his standard of values being soon dispelled by the stern necessities awaiting him on his return home.

I find students in general very hard on Tom and unboundedly appreciative of Maggie. I have wondered if one notable exception I once heard of, was not, morally, a kinswoman of Tom's. This student denied that Maggie was sympathetic.

She was not at all sorry for her mother's grief at losing her furniture. She could not have been sympathetic or she would have cried with her at the thought of their beautiful things going to strangers, who perhaps *would not even keep them clean.* [The italics are mine.]

But the severest of them sympathise with his trials at Mr. Stelling's. Their sympathy usually dates from their reading of his prayer that he might remember his Latin; from their realisation of the blank ignorance

of even the state of mind to ask for, in which to approach his Euclid, resulting in his pathetic decision that only a change in Mr. Stelling's demands would meet that need. They eagerly plan courses of study which, they think, would have made his world larger. They point out that his interest in fighting furnished a basis for interest in History and Literature, since both Philip Wakem and Mr. Poulter could hold him spellbound with their stories. They would have used the stories of his own Floss in flood to make him see how, according to Herodotus, the Euclid he found so difficult originated. They would have introduced him to Geometry by a little surveying, for which, they argue, he must have been already prepared, or his estimates of space would not have been so accurate. And one and all would have let him off Latin. Maggie's tastes claimed it for her, they decided; Tom found expression in his native tongue sufficiently difficult; History and Literature were crying needs for him and should have been reached by the easiest road. One and all would have taught him Science, Mechanics being the branch most favoured, and would have helped him to Arithmetic by Manual Training.

The narrowness of Tom's mind and his tendency to ignore whatever did not fit into his scheme of life, whatever was not practicable, made it more than usually desirable for his studies to be shown to have a place in that scheme; his strong self-esteem should have been the means to an affection for study, by being fed by success in some one of its branches. Success might have been made possible in several.

The days of difficulty justified Tom's estimate of himself, saw him the restorer of his father's fortunes, the architect of his own.

A character at unity with itself—that performs what it intends, subdues every counteracting impulse and has no visions beyond the distinctly possible—is strong by its very negations.

To such a character success is bound to come—the applause of his world for actions which the lowest see

well done. To neither of his teachers is this success traceable. Neither Mrs. Jacobs nor Mr. Stelling educated Tom. His character was built up by the Dodson atmosphere in which he lived—an excellent atmosphere in many respects and highly congenial to his native endowments.

The Dodsons' pride lay in the utter frustration of all desire to tax them with a breach of traditional duty or propriety. A wholesome pride in many respects, since it identified honour with perfect integrity, thoroughness of work and faithfulness to admitted rules. Virtues and vices alike were phases of a proud and honest egoism, which had a healthy dislike to whatever made against its own credit and interest and would be frankly bold of speech to inconvenient kin, but would never let them want bread, only require them to eat it with bitter herbs.

Proud as they had always been, the Dodsons were made prouder by Tom's success, which epitomized the successes of their race and was won by the same virtues. His alienation from Maggie they could comprehend—it is comprehensible by all. It was the result of his being one of them and being educated by them. But other influences might have prevented that alienation. Comprehensible as it is, sympathy inevitably goes to Maggie; and all acknowledge the justice of her estimate of him in her denunciation of his attitude to Philip Wakem:—

You thank God for nothing but your own virtues—you think they are great enough to win everything else. You have not even a vision of feelings by the side of which your shining virtues are mere darkness.

No vision—without which we perish. No lowliness in the consciousness of greatness beyond us—lowliness by which we rise.

Perhaps it came, in the last moments, when, with flood-like suddenness,

The full meaning of what had happened rushed upon his mind. It came with so overpowering a force—it was such a new revelation to his spirit, of the depths in life that had lain beyond his vision, which he had fancied so keen and clear, that he was unable

to ask a single question. They sat mutely gazing at each other: Maggie with eyes of intense life looking out from a weary, beaten face—Tom pale with a certain awe and humiliation. Thought was busy though the lips were silent; and though he could ask no question, he guessed a story of almost miraculous divinely-protected effort.

Perhaps, with the mist of tears, other mists cleared away and the vision came. But it might have come earlier.

## THE CULTIVATION OF TASTE IN SCHOOLS.

### THE RECORD OF A LESSON AT JENA.

By DR. GODFREY H. THOMSON  
(Armstrong College, Newcastle-upon-Tyne).

One of the model lessons given during the holiday course at Jena this year by Herr Böhm, chief teacher in the experimental school attached to Professor Rein's pedagogical "seminar," had for its aim the cultivation of taste, especially an appreciation of good pictures. The cultivation of *literary* taste by definite lessons having this as their conscious aim is fairly common, but it is more usual in England to leave other forms such as a love of good music or pictures, to indirect or incidental teaching. This lesson was so characteristically German that it may be worth while attempting to give some idea of it in English.

The small class was composed of boys in their fifth schoolyear, that is, about eleven years old. On the previous day the subject of their lesson had been a poem, "A storm on the Frisian Coast," in which a widowed mother vainly tries to dissuade her only remaining son from leading the lifeboat party, only to find later that the rescued man is her missing youngest son, Uwe. It is a hackneyed plot for grown-ups, but in the hands of a teacher who is a past master in the art of suggestion and of leading his class to talk freely and enthusiastically, it had told with thrilling effect.

The master opened the new lesson with a quiet announcement: "To-day we are going to study a picture—we are going to see how a famous painter painted 'longing.'"

*Teacher*—"Well, what do you think he might paint?" "Think of our poem yesterday."

*Boys*—"Uwe's mother would often long to have her son back with her again." "The painter might have shown the old mother sitting lonely at home looking into the fire and thinking of her son and wondering where he was."

Other boys suggested additions to, or changes in, the picture, and one more original than the rest said that Uwe, too, would often long to be at home. "He could paint the sailor sitting on deck in the evening, mending his clothes and looking across the sea to where his home lay far away." "He could show him steering the ship on a stormy night and thinking 'now it is warm and comfortable at home and mother will be cooking supper.' " Several boys vie with each other and almost quarrel over the best way of painting Uwe. This eagerness was a marked feature of the whole lesson and there was never any lack of long, well-spoken answers.

After a while the master, with a word of praise for their efforts, said: "But that is not the way our painter painted 'longing.' True, he shows a mother yearning for the return of her son, but in a very different way." At this point the covering which had hitherto concealed a large picture on an easel, was removed, and for a minute the class gazed at Böcklin's painting "Sehnsucht." Then, in a few sentences, the teacher led the minds of the boys away from the stormy Frisian Coast to the new setting. "We are in Italy, on a quiet, peaceful island, the sky and sea are still." Then, started by some remark or question, the boys began describing what they saw in the painting—the female figure in mourning garb standing by the water's edge, and looking longingly over the sea, calm, but for the gathering storm clouds far away on the horizon—the rocky, yet peaceful, coast, roses and laurels on the shore—the rich palace guarded by tall cypress trees. They spoke out bravely and eagerly, and showed great artistic observation, and their sentences seemed, at least to foreign ears, to be appropriate and in good taste, with none of the crudeness which might not unnaturally be expected: and when one boy halted there were always several ready to go on.

Then Herr Böhm, after calling on a pupil to sum up this part of the lesson, told in interesting manner the story which Böcklin might have had in mind, the noble

young husband and his wife and son living in happiness at the palace—the monarch's call to the wars—the death of the warrior husband on the distant coast—the mother's life devoted to her boy, her dread when he, too, will be a soldier and will revenge his father. "And now she is standing as she stood once before and wonders if he, too, will be killed in battle or if she will welcome him home to her longing heart."

This was mainly told, partly anticipated by the boys. It was no doubt bold to put into words, definite words, the story of the picture and this was strongly criticised afterwards, many of the hearers having their own versions of what Böcklin thought and illustrated by this painting.

Then came what was probably the most difficult part of the lesson. The children were asked to look again at the picture and to try and see *how* the painter shows his thoughts. The subdued colouring was brought out by a comparison with other pictures which were shown, similarly the cypresses were contrasted with trees of livelier and brighter aspect and it was shown that they framed the palace, leading the eye to this latter and then to the solitary figure below on the shore. In this part of the lesson more was done by the teacher, but the boys were always helping and throughout the lesson were chatting and talking to their master in a way which cannot be imitated in a short description. Besides, the audience was too interested to care to make notes.

Finally, two other pictures of Böcklin's, the "Island of Death" and the "Fiddling Hermit" were shown and admired and the class was dismissed.

The lesson was fundamentally German in atmosphere. There was no doubt as to the interest it aroused in the class. As an example of great skill in the "developing" method which is characteristic of Professor Rein's school it was perfect. It is doubtful, however, whether such lessons could be given by an ordinary teacher or by an English teacher to an English class, and whether time could, or should, be found for them.



## REVIEWS.

*Principles of Secondary Education*: Vol. I. "The Studies," Vol. II. "Processes of Instruction," by Professor Charles De Garmo. (The Macmillan Company.)

In his *Principles of Secondary Education* Professor De Garmo sets before the reader in a most interesting and lucid manner a "systematic presentation of the fundamental principles of American secondary education." The work is intended to serve as a text-book for college and university classes who are studying this subject, but it is perhaps scarcely necessary to state that, although the author deals specifically with American High Schools, the valuable material presented in these volumes is of much wider application. It will be convenient to discuss the two volumes separately.

Volume I., "The Studies," is an enquiry into the educational values of the ordinary subjects of school instruction and on this examination is based the attempt to assess their relative places in the curriculum. The guiding principle in the estimation of such values lies in the recognition of the need of adjusting education to the wants both of the individual and of the society in which he lives. On these lines the growth of curricula may be treated as a process of evolution in which the context of the studies is being continually re-adapted to social and individual environment. The various subjects are compared and classified, and from the Herbartian standpoint the vexed question of formal discipline *versus* specific training naturally looms large.

The great value of the book lies in the fact that it gives to the student a clear exposition of these important features of educational thought in their special application to High School problems, while at the same time the universality of the doctrines it sets forth and the broad method of treatment prevent its being entirely confined to one branch of educational activity.

The idea of bringing education into line with race experience is the basis for the correlation of studies, and in considerable detail the author works out the points of contact between the two aspects of education, the acquisition of knowledge and its application in practice, or, as he puts it, between insight and efficiency. By this criterion are indeed various schemes of correlation and coordination

Throughout the book there is much suggestive comparison with European systems and the appendices containing details as to curricula taken from schools of different nationalities are a valuable addition to the work.

The second volume of the *Principles of Secondary Education* treats of the theory of teaching from the logical standpoint, and is, in fact, an exposition of Bacon's new method as developed by Mill, applied to the processes of instruction.

A clear grasp of what is involved in the inductive method in its practical application to the teacher's art is not too readily attained, and this book puts plainly and simply before the student the main principles underlying the acquisition of knowledge by the race. It describes with numerous examples the typical "goals of induction," namely, generalization, classification and the establishment of causal relations. Finally, it demonstrates the importance of a knowledge of such principles in their application to those subjects of instruction of which the psychological value has been discussed in the previous volume. The relation between the inductive and deductive methods is set forth and the educational possibilities of each are compared. It is perhaps to be regretted that in his examination of the limitations to the use of the inductive method in school, the author does not more fully discuss the question of the selection of subject-matter and the child's right to the heritage of knowledge transmitted to him by his predecessors. The student who, in teaching practice, claims that he is using the inductive method in its fullest significance, sometimes forgets that he, in his capacity as teacher, has done much preliminary "sifting" of material and that consequently the child in his "voyage of discovery" is not working on exactly the same lines as the scientist who first groped after the truth which has now become a commonplace.

Although the book deals but little with Formal Logic, an expansion of the section that treats of logical classification and division would be useful to the student, who at times finds surprising difficulty in grasping the principles underlying these processes.

An important section of this volume is devoted to an explanation of the connection between the processes of induction and deduction and the Herbartian formal steps. The concrete illustrations from the class-room not only throw light on this relation, but also show what the painstaking student is often so slow to understand, that all the five formal steps cannot necessarily be introduced into every lesson.

In both volumes of the work numerous topics for discus-

Many of these are most suggestive, both in their educational bearing and in their wider application of the principles they set forth. Perhaps it is hypercritical to suggest that they are almost too numerous.

In these two books the author to a great extent has fulfilled his aim of setting forth a clear presentation of the principles of Secondary Education.

S. E. S. R.

*Principles and Methods of Moral Training*, by J. Welton, M.A., and F. G. Blandford, M.A. (W. B. Clive.)

This is undoubtedly one of the most important books on education which have made their appearance in recent days. The ethical side of education has always been recognized as being one of the most important. All writers practically agree now that the corner-stone of educational theory is the problem which concerns itself with the discussion of the aim, the purpose of education, and all are equally agreed that this must be essentially an ethical problem. Yet, curiously enough, while many writers on education have turned their attention to the psychological side, and we have many books on the psychology of education, very little has been written on the ethical side. Too many writers are content with some vague generalities on the aim of education, or in discussing essential ethical problems from purely an empirical point of view. There has been a gap in educational theory and Prof. Welton and Mr. Blandford are to be congratulated in supplying us with what the advertising world would call "a long felt want."

To write a book which has discipline for its chief topic requires some courage. Most schoolmasters look askance upon such a book. They regard discipline as being essentially a personal matter, and think it useless to look to books for guidance. And for this there is some justification. Most of what has been written on this problem has been written almost entirely from an objective point of view, and the result has been either common-place, or sheer rule-of-thumb. The authors of this book do not fall into this error. They have presented us with a masterly analysis of the general nature of moral training, and the main characteristics of the product it aims at securing. The book deals with principles and their application. It is an excellent combination of theory and practice. The authors bring to their task both knowledge and experience. They are both experienced schoolmasters who have reflected upon their work. They know the organization and the work of schools

of different types from the inside, and as a result have produced a book which should appeal to every thoughtful teacher.

The book begins with an examination of the general nature of moral training, and the root element of this is found in evoking the will. The aim of moral education is to secure that the will of the child is aroused and fixed on something which makes for righteousness, to train the young so that moral truths become to them principles of action. All education is moral in so far as its aim is the formation of purpose. Hence the moral aim of education is to train the young so that moral truths may become to them principles of action. The starting point is to be found in what the authors call *habitude*. This word is a new term and though not exactly a pretty word, will be useful to distinguish it from *Habit*. *Habitude* is used for the general tendency, resulting from past life, to will, feel, think, and therefore act in certain ways in certain circumstances, while *habit* designates the series of acts in which the *habitude* shows its existence. The formation of good *habitudes* is the preparatory stage of the real moral training, since conduct becomes consciously moral only when regulative canons of conduct are accepted as authoritative guides to life. The next chapters concern themselves with a closely reasoned analysis of the great moral truths which are to become principles of action: duty, virtue, conscience. Then follows an examination of the school as an organization for fitting its pupils for their future life by the regulation of their present life. To be effective such regulations must affect the whole nature of the child, not only his intellect through teaching, but also his bodily conduct, his feelings, and his will. The training of the will is fundamental, and is essentially the function of discipline. The final chapters discuss the school as a disciplinary organization, the relation between the school and the home, and stimulus and restraint. In these chapters we meet with problems which are of vital interest to all schoolmasters, such as those connected with marks, rewards, prizes, punishment, day schools and boarding schools, reports, and the like.

Such is the bare outline of the main argument of the book. But only a close examination of it will reveal the treasures which it contains. In the chapter on Duty, to select only one out of many good things, we find an excellent criticism of Rousseau's main conception of education, and a clear exposition of the danger it involves. Rousseau's ideal of life is found wanting because it is "a quiet existence, seeking as little as possible from others, doing as little as possible for them; looking not ahead; inspired by no

lofty purposes; finding its satisfaction in making the best of the present; abhorrent of all service which involves self-sacrifice; avoiding ill yet not seeking good, for 'by working to increase our happiness we render ourselves miserable.' In a word, it is an existence most ignobly selfish, wanting in that endeavour after something better which makes even aggressive self-seeking not utterly contemptible. It is the glorification of the flabby sentimentalist, in whose philosophy of inertia no real conception of duty or the seriousness of life can arise." It is doubtful if a better exposition of the main fault of Rousseau's educational idea can be found anywhere. In chapter vii., to select another example for quotation, we get an excellent criticism of too rigid discipline. "The extreme of rigid government is less obviously bad" (than lax discipline), "but it is bad, nevertheless. Boys are punished by reproof, imposition, detention, or caning, for mere involuntary movements or changes of position which are by no means symptomatic of idleness or wandering attention. The master who has his class in such control is usually proud of his 'discipline,' as he fondly calls it, and flatters himself that in *his* class-room at least there is strict attention to business from beginning to end of school. Such a man probably has little real sympathy with boys, and therefore does not realize, or if he realizes, does not care, that the boys are thoroughly uncomfortable all day and physically very tired at the end of it. He goes to school to work and he expects the same amount of work from his class. But it would probably affect him profoundly if he could realize that it is not in such circumstances that the best work is done, for attention is divided between the lesson and the maintenance of the required immobility; that his boys, therefore, do not in fact learn as much nor work so hard as the boys in the neighbouring class-rooms which he would consider undisciplined bear-gardens. . . . In the ordinary class-room where there is no undue restraint, wandering attention can instantly be observed and recalled. If a boy is becoming exceedingly weary of a dull lesson he will be tempted to look at the clock or at his watch to see how much longer it must be endured. . . . The boy will not be restrained by fear from expressing his desire in action, and the wise teacher, while regretting that the boy has yielded to the temptation, may yet welcome the symptom as an aid to his diagnosis and treatment of the disease. . . . He will realize that his teaching has become flat and unattractive, and he will either modify the teaching or provide the class with more profitable work to occupy them." The passage is

The book, though the work of two men, forms a unity of conception and execution which speaks well for the care with which it has been written. The style is clear and terse. The book is full of excellent aphorisms which challenge attention. Thus we read: "Commands are the hedges of the weak; suggestions are the finger-posts of the strong." "Punishment is moral medicine; and medicine can no more be the food of the soul than of the body." "Punishment is the normal consequence of what is abnormal." "The really good disciplinarian is he who can infuse into the school as a whole his own general attitude towards life and its duties." "When the pupils of a school discontinue all their studies immediately the compulsion is removed that school stands condemned."

The authors have made a real contribution to the Science of Education in writing this book, which can be thoroughly recommended to anyone interested in schools and pupils.

S. S. F. F.

*The Administration of Public Education in the United States*, by S. T. Dutton and D. Snedden, with an Introduction by Dr. N. M. Butler, President of Columbia University. (London: Macmillan & Co.).

"By far the largest part and an increasingly large part of the educational activity of the United States is governmental, *i.e.*, it springs from the Government and is administered by the Government." So writes Dr. Butler in the preface to this book which is a most useful compendium of the different aspects of governmental educational activity. After an historical introduction it passes on to consider the relation of the National Government to education, the State systems of education and then the city school systems. Here we begin to get into close quarters with such questions as the schoolhouse and its construction, text-books and supplies, the duties of the superintendent, or inspector, as we should call him, and the teaching staff, their supply, salary, prospects and improvement. A chapter is devoted to the problem of the syllabus and its construction, and since the authors are both professors of school administration, the question of the administration of the different forms of education in the United States are fully dealt with as well as such cognate topics as compulsion, child labour, school discipline and finance, concluding with a most interesting chapter on the effect of the school on society and the relation of parents and teachers. It is pointed out that teachers may instruct

taining outlines of work being attempted in school with lists of books suggested for home reading, by visits of teachers to the children's homes, by allowing pupils to carry home their written work in order that their parents may examine it, by allowing their pupils to write letters to their parents about their studies and by seeing that pupils carry to the home as few misunderstandings or unpleasant impressions respecting their teachers as possible.

To English teachers the book has a special value from the fact that it looks at our difficulties from another point of view and throws much additional light upon our darker places. Upon the vexed question of student teaching, it insists that normal students should first observe good work and then should have the opportunity of teaching at least one lesson a day throughout the entire year, although the training work for a given student may be compressed into a few months, provided he is relieved of other demands. Students should only have a small group of pupils in their first efforts at teaching but gradually be able to assume control of an entire class and to conduct it alone for a full session. Stress is laid upon the great importance of observation work and practical experience in all the details of class-room management, the use of books and materials and other things which belong to the duties of a teacher.

Another of the stimulating chapters of the book is that on the elementary course of study and its problems. These are so freshly stated that they almost appear new to us and their very novelty induces us to pay more attention to them. How do we indicate which of our studies should enter into the inner fibre of the intellectual life of the pupil and which other studies should only be taken for the sake of interest and appreciation and afterwards dropped because their results are intangible? Such a scale of values would be most useful in every school because one could see at once what the pupils would be likely to carry away as permanent impressions. Too many teachers try to have all types of learning about equally effective and permanent, and others neglect some very essential matters as teachers in Secondary Schools very often find. It is most refreshing to be told that some tables in arithmetic, some dates in history, some facts in geography, some grammatical rules and some definition of words should be learnt so thoroughly and reviewed so frequently that they become automatic. Here, at least, is a rudimentary vertebra from which something definite can be evolved, and it may serve as a warning to the mollusious who advocate too soft a pedagogy.

It has been said that English teachers are gradually becoming knowledge-mongers. There is not much fear of

this in America, for in nearly every modern book upon education the problem of teaching how to study is attacked. It is a favourite platform question and discussed, debated and written about in all the Training Colleges. The authors affirm that the inspector of Elementary Schools is warranted in seeking quality rather than quantity. The spirit of the work, the way in which it is accomplished and the habits of application and study formed by the pupils are of inestimable value. Training how to study may be made one of the highest ends in elementary supervision. The teachers, many of them of limited experience, think much of subject matter. The curriculum is before them and they are anxious to accomplish the amount assigned. Thus the giving of lessons becomes of the first importance, but the inspector, recognising those more hidden and spiritual values which are wrapped up in school life, will give his attention, not so much to what the child is receiving, as to what he is actually doing. Has he ability to acquire truth from the printed page; can he discriminate between what is large and what is small; between what should be remembered and what is of passing consequence? Are there sufficient study periods; does the teacher study with his pupils, discovering and emphasising the larger truths? Does he assign lessons with such care that the pupils know not merely what the task is, but how it may best be attacked, so that whether in school or at home the effort to study may be to good purpose and there may be satisfaction and confidence as to the result? All these queries should be in the mind of the thoughtful teacher who will find new opportunities for professional growth in working along these broader lines.

It is because this is a most suggestive and stimulating book that we can confidently recommend it to our readers. Throughout its pages there is an air of practicality which makes it a welcome addition to the shelves of the Training College library.

J. W. J.

#### AMERICAN THEORY AND ENGLISH PRACTICE IN MATHEMATICS.

*Special Method in Arithmetic*, by C. A. McMurry, Ph.D.  
*A Modern Arithmetic*, Part II., with answers, by H. Sydney Jones, M.A.

*Practical Arithmetic and Mensuration*, by Frank Castle, M.I.M.E.

*A New Algebra*, Volume I., with answers, by S. Barnard, M.A., and J. M. Child, B.A., B.Sc.

(All published by Macmillan & Co., London.)

The writers of these four books have in each case made a professed attempt to treat the problems of mathematical



teaching from an essentially modern point of view: they may, therefore, be conveniently considered together. Moreover, it will be interesting to determine how far English practice, as represented by the last three works, is in line with American theory, as represented by the first.

Dr. McMurry's book is one of a series in which (as readers of this journal already know) he has sought to show the applications of the general principles of method to all the subjects of the elementary curriculum. In making this application to arithmetic he has followed the lines of Prof. Dewey's pedagogy rather than Herbart's, and quotes extensively from McLellan and Dewey's well known *Psychology of Number* and from Prof. D. E. Smith's important work on *The Teaching of Elementary Mathematics*. The importance of arithmetic has generally been supposed to lie either in its practical usefulness or in the "mental discipline" which its study affords. It is easy to show that the former is, in the case of most persons, very limited, while no one conversant with modern psychological discussion would venture to lay much stress on the latter. In reality, urges Dr. McMurry, its value lies in the fact that "it is a standpoint from which the better to see through and around a great many important topics." Arithmetical facts and processes should be mastered, therefore, neither for their own sake nor for the sake of later application in various subjects. They should be regarded as instruments for interpreting and classifying new bodies of knowledge—in geography, history, natural science, and practical life—as they come into the pupil's view. "Arithmetical thought should be built into the other studies steadily from day to day." The illustration of the way in which this concept of arithmetic will determine the scope and details of the subject matter of instruction forms the most useful—as well as the largest—part of the book, and may be read with profit by every teacher. The value of the general discussion of the character of the arithmetical curriculum is greatly enhanced by the addition of a specimen course of study for the primary, intermediate and "grammar" grades.

Dr. McMurry's concept of method in arithmetic is entirely congruent with his concept of its aim. The mastery of every topic will be an inductive-deductive process. In the first phase the new arithmetical process is reached inductively in the attempt to solve some definite problem or group of problems (e.g., "How shall we add three-fourths of a foot and two-thirds of a foot?"); in the second phase the pupil comes to apply it to important practical and theoretic affairs that need arithmetical clarification. In addition to illustrations of this general scheme of method, observations, very useful to the young teacher, are given upon matters of practical

detail, such as the functions of oral work, the correct use of measuring apparatus, and the best methods of linking new work on to the old.

There is no doubt that Dr. McMurry outlines a curriculum and a method of instruction in arithmetic far superior to those in general use in this country. Nevertheless, it seems necessary to signalise several faults of omission and commission that should be corrected by the lecturer who places this book in the hands of his students. The most serious of these is a neglect of the formal element in arithmetic teaching, so striking that the reader is almost led to wonder whether the author expects the student to look elsewhere than in a method book for the satisfaction of one of his chief needs. Thus there is no discussion of the principles underlying the methods of derivation and the scope of application of the fundamental processes—of the methods of subtraction, of the two concepts of division, of the extended sense of multiplication when applied to fractions, etc.—topics upon which the English student, at any rate, almost always needs illumination. These omissions are (perhaps) the expression of a failure to see that between the inductive and deductive phases of Dr. McMurry's method-scheme there should occur an intermediate phase of technical development of the arithmetical process, equally essential with the others, a phase in which legitimate satisfaction is given to the traditional demand for "mental discipline." Minor weaknesses on the side of technique are the absence of recommendations with regard to preliminary estimates of results, rough checks, approximation processes, etc. Again, consideration of the proposed Course of Study suggests that the idea (excellent in itself) of leading the pupil to regard arithmetic as an instrument for apprehending and investigating the quantitative aspect of geographical, industrial and political topics is forced upon him prematurely. The present writer, at any rate, feels grave doubts as to whether the programme offered would minister adequately to the development either of the mathematical or of the other interests involved. A syllabus, written definitely from the point of view of the development of mathematical thought and technique, and exhibiting specifically the problems from which the various processes are intended to arise inductively, and the further problems which are to minister to the development of technique, is necessary, it would seem, for the proper fulfilment of such a plan as the one before us.

The text-books by Mr. Sydney Jones and Mr. Frank Castle are both based on the principle advocated by Dr. McMurry that arithmetic should be regarded as an instrumental and not as a substantive subject of the curriculum. This is

realised more clearly by Mr. Castle who, in all his well-known books on "practical mathematics," draws his inspiration from Prof. Perry. Mr. Jones, seeking to comply with the recommendations of the Mathematical Association and the British Association, acknowledges indirectly the same source. Thus, in their details both books depart widely from Dr. McMurtry's scheme, through their bias towards topics arising in connexion with courses of instruction in physics, engineering and surveying. On the other hand, neither author has been bold enough to expel the old leaven altogether: the ancient examples on stocks and shares and equation of payments appear in uncomfortable proximity to exercises on the Slide Rule and various forms of graphical calculus. Mr. Jones admits the necessity, *inter alia*, of satisfying the requirements of various examining authorities, and draws his very numerous revision examples largely from their papers. It follows without saying that many of them are outrageously unsuitable as suggestions for the course which arithmetical instruction should follow. In compensation, however, there are several good things in his book: for example, his introduction of geometrical progressions in connexion with annuities and insurance, and the chapter on statistics in which the pupil is made acquainted with certain concepts that have recently become important in many fields of investigation. This chapter might usefully be expanded and altered so as to include examples from biological and other phenomena that suggest the important and quite elementary notions of correlation and regression. Mr. Jones should take the first opportunity of improving his very inadequate account of the meaning of the term "probable error" on page 511.

Messrs. Barnard and Child's *Algebra*, though also "modern," is inspired by a totally different school of thought: they set in the forefront of their book the severe names of Cantor, Chrystal and Dedekind. The reader will, therefore, anticipate—and will find—that the requirements of the logical development of the subject have dominated their exposition throughout. They have, in effect, sought to complete the task which Prof. Chrystal began in his *Algebra for Beginners*—the task of evolving a course that should bring out for the comprehension of the average schoolboy the logical principles involved in the nature and application of number. At the same time they have aimed at producing a book practically useful for school purposes.

The greatest sympathy must be felt with an effort so able and conscientious as this is to raise the level of mathematical

deserved. An uncomfortable doubt arises, however, as to whether a method is pedagogically sound which seeks to teach algebra at one and the same time as a useful instrument of description and investigation and also as a means of abstract logical analysis. One feels that the former of these phases should definitely precede the latter: whether this doubt of the soundness of the authors' method is justifiable experience alone can tell.

T. P. N.

*The Invicta Number Scheme.* (George Philip & Son.)

The essential feature of the scheme is a small board for the use of each child,  $14\frac{1}{2}$  inches by 11 inches, of slate card with silver and red rulings which divide it up into  $100 + 30$  one inch squares. Blocks, checkers or chalk marks can be placed by the children so as to represent numbers on the 100 squares. Counters having a different colour on each side are recommended, with these the composition of numbers, addition and subtraction can be shown. A device for visualising tables is also suggested. Hints are also given for the use of the board in the higher standards, in teaching L.C.M., decimals, fractions, etc.

It will certainly be useful in many lessons that each child should have such a board, and the plain slate surface on the back is suitable for free-arm drawing. Probably, however, each teacher will do well to evolve his own methods and devices in using the board, though the handbook will be suggestive.

G. H. T.

*A Geography of the British Isles*, by A. Morley Davies, D.Sc. (Macmillan.)

*Practical Exercises in Geography*, by B. C. Wallis, B.Sc. (Macmillan.)

The aims of Dr. Morley Davies' book are to present material—maps and statistics—from which the pupils can extract the essential facts and relations between facts, and also to follow a progressive method so that the earlier lessons should reveal general principles applicable to the later lessons. A previous study of their own district, and practice in compiling statistical tables from observed facts

the Ordnance and Geological Surveys and the Shipbuilding Reports of the *Glasgow Herald*.

The maps are numerous and good. The use of a good atlas is of course essential in addition, as the author distinctly states. Maps of a portion of country where no coast-line is shown are notoriously difficult to place and understand, and the map of the Trent and Don Basins, on page 113, and also that of the London Basin, on page 37, are bad examples of this.

Some photographs of typical scenery, etc., are given. More of these would have been welcome, but probably the price of the book would in that case have been higher.

The map of the River Basins, on page 93, does not seem very helpful, as the shadings are more or less useless, and generally speaking the minute division of several of the maps into river basins seems a mistake. There are questions among the exercises requiring these lines, but in many cases they might have been left for the pupil to fill in. In some the lines do have a meaning, as on page 178.

A good point is that there is enough material in the book to keep a class busy. It seems very suitable for students preparing for the teaching profession who are apt to be disgusted at the (at any rate apparent) simplicity of some books for schoolboys, yet are not sufficiently advanced to read the classical text-books, which in any case are too expensive.

The accuracy of the matter seems beyond question, including the geology which is, however, kept in its proper place and not allowed to usurp too much attention. Every teacher of geography should examine it for himself.

The *Practical Exercises* of Mr. Wallis forms a two years' course, and is evidently written by a teacher. The plane tabling, as is almost invariably the case in school books, makes too much of the first base line. Every practical plane tabler goes to other points and checks and extends his work from them. A careful study of the book, however, leaves the impression that it would be very useful, and that a teacher would find it very helpful to use it in his class for practical work.

The additional exercises in descriptive geography, on pages 132-152, are novel and illuminating.

G. H. T.

*Puerorum Liber Aureus*, by T. S. Forster, M.A. (London: Adam & Charles Black, 1908.)

The general recognition among educationalists that the old methods of classical teaching are no longer possible if the

led, during the last few years, to the production of a large number of Latin schoolbooks. Of these a noteworthy example is the *Puerorum Liber Aureus* which has now reached a second edition. A first translation-book for schoolboys, embodying the general principles of the reformed methods of classical teaching, it takes the form of a continuous story based on the life of Marcus, an imaginary Roman schoolboy, who lives in the country and whose family has been very closely connected with the imperial campaigns in Gaul, Germany and Britain. With the life of the boy as the connecting link, it is easy to introduce in simple fashion many of the episodes of these wars, and many incidental pictures of Roman life and custom.

The author further carries out his plan of representing the Romans in a vivid and real way by the use of numerous illustrations, some fanciful, others from the antique, taken from warfare and from home-life.

The book, however, is not merely a reader: it is so arranged that simple grammar may be learned inductively; the text is carefully selected so as to introduce the various declensions and conjugations gradually and finally to lead up to the more difficult syntax and to the idiomatic phraseology of Cæsar and other Latin writers, for which the class should be ready when they have mastered the *Liber Aureus*.

The arrangement of the vocabulary calls for comment; the device of classifying the chief parts of speech separately may be useful for the beginner, but should be dropped at an early stage, for it is open to the objection that it does for the boy work which it is most essential that he himself should do, that of determining by their inflection the various parts of speech. It is not, moreover, the best way of preparing him for the harder task of using the Latin-English dictionary, which should be his at no very distant date. Objection may also be raised to the introduction of certain words not very common in classical Latin. Among such may be mentioned *ciconia*, *sturnus*, *caupona*, *iuncus*, *parietinae*.

This is often an inevitable result of the attempt to write a Latin reading-book which shall appeal to the schoolboy, and it arises from the endeavour to introduce the language of everyday life, such as one finds in Terence and Plautus and the more colloquial parts of Horace, authors which, for various reasons, are unsuitable for the beginner. The boy who uses this book meets, therefore, with many words which he will not require in his first acquaintance with Latin authors, and he is, moreover, confronted with a somewhat considerable number of rarer Latin terms which are only

A valuable feature of this book is a number of exercises based on the text, and there are a few suggestions for conversational Latin which can easily be amplified by the teacher.

The story is likely to prove interesting to young boys; the book is a compromise between the old-fashioned exercises with their detached and often meaningless sentences and the more difficult prose of the classical writers, to which, in the hands of the skilful teacher, it should form a valuable introduction.

S. E. S. R.

*Tales of Troy and Tales of the Greek Seas*, by Andrew Lang.  
(Longmans, Green & Co.)

The stories contained in these two small volumes appeared originally in Mr. Andrew Lang's *Tales of Troy and Greece*, which was published in 1907. They are now issued in two books in Messrs. Longmans' series of class books of English Literature, and to them have been added some explanatory notes and an introduction which did not appear in the first book. Coming from the pen of Mr. Andrew Lang, whose works on Homeric literature and delightful children's books are so well known, these little volumes may well claim a place among the school-books of the fortunate children of the present generation.

In simple and poetic language, suited to the old-world stories that he tells, Mr. Lang describes yet once more the varied fortunes of wide-wayed Troy and the deeds of the mighty heroes of by-gone days. Of these famous men of old, it is the much-enduring Ulysses, the man of many counsels, whose story forms the connecting link for the many ancient tales that the author introduces.

In the *Tales of Troy* the child may read of the early life of young Ulysses in rugged Ithaca, of Paris and Ænone, of fair Helen and valiant Achilles and of Agamemnon, king of men, of how Ulysses planned the famous wooden horse, and of how the great city was taken. Thus, in brief outline, he is made acquainted with the story of the Iliad, and with some of the later legends connected with lofty Ilium. Then in the *Tales of the Greek Seas* he may follow the destiny of Ulysses on that wonderful fairy journey of the Odyssey, and read of adventures that can never lose their interest for his wonder-loving mind. Moreover, as he reads, he learns how men lived in those ancient days, and about their homes and their dress, their weapons and their customs. Mr. Lang makes use of the vast stores of infor-

is day by day making the life of the ancients a more real and living thing to the modern world.

The tale of the Argonauts and the Golden Fleece is also included in the *Tales of the Greek Seas*.

Both books are furnished with pictures, imaginative, but pleasing and artistic. It is perhaps to be regretted that such famous illustrations as the Lion Gate at Mycenae and the Vaphio Cup are not introduced, although referred to in the text. Illustrations from the antique do not always appeal to children, but the use of these famous examples of ancient art would not be open to any objections on that score, and could scarcely fail to excite the admiration, at any rate of the elder children who may use the books.

The two volumes are well printed and tastefully bound, and they are books which may well be found in every school, whether as readers for the higher standards of an elementary school, or as a text-book for children who are learning something of the literary masterpieces of the world.

The original volume, the *Tales of Troy and Greece*, is a larger book; it contains, in addition to the stories already mentioned, the tales of Theseus and the Minotaur, and of Perseus and the slaying of the Gorgon. Many children, of course, have already made acquaintance with these in Kingsley's *Heroes*, but they are tales of the heroic past which can never lose their charm for any reader, and may be welcomed once more in the setting that Mr. Lang has given them, and in the delightful form in which they are presented. In the story of Theseus the author has made use of the recent discoveries in Crete to give a fuller description of the wonders of the palace of Minos at Cnossus. The book is one which, with its attractive pictures and good binding, may well be recommended as a valuable addition to a child's library.

S. E. S. R.

*The Function of Words*, by M. C. Carman, B.A. (Longmans, Green & Co.)

This book has been written with the aim of simplifying English grammar for teacher and class by confining the attention of the learner to forms actually in use and by omitting the detailed rules and subtleties of the grammar of old-fashioned type. The sentence and not the isolated word is taken as the unit, the book is divided into three sections dealing with simple, complex, and compound sentences respectively, and words in their varying functions are only



method of treating each part of speech more or less completely in one section. Rules are plainly stated and unnecessary information avoided, and so far, the method adopted is good. The reader, however, cannot help feeling that the effort to be concise and to avoid irrelevancies has led the author to sacrifice certain necessary and important points. It is true that in the English noun the case inflections have disappeared except in the possessive, but as it is necessary in dealing with pronouns to enumerate and explain the cases, some comparison should be made with nouns, and emphasis should be laid on the fact that nouns also at one time had complete case inflections. Moreover, there is danger of confusion in calling the word "shilling" an object in such a sentence as "The book is worth a shilling," without going into further explanation to show that the construction is not that of the ordinary object after a transitive verb. The term "nominative absolute" is also not intelligible without some reference to case. Again, the terms complement and object should be carefully distinguished: this is touched upon lightly in the first chapter, and is not adequately treated when referred to later. Other terms requiring more explanation are abstract noun (for which the definition given is not the best) and infinitive mood. The use of the word "article" is open to criticism.

The book is on the whole clearly arranged and methodical, examples are numerous and classifications generally logical. There is a good variety of sentences for analysis, and certain lists usually embodied in the text are relegated to the appendices, which adds to the clearness of the book.

A. M.

*The Essentials of English Syntax*, by Florence M. Snell.  
(Longmans, Green & Co.)

*The Essentials of English Syntax* is another of the new text books based on that better method of English grammar teaching which takes the complete sentence as the unit. The first chapter is devoted to an examination of sentences of various types and to a rapid survey of the Parts of Speech. This is followed by a short chapter dealing with the relations of words to one another, while the remaining chapters treat of the Parts of Speech in detail. This arrangement calls for some comment. If the book is intended, as it would seem to be, for beginners, it is scarcely wise to compress into the limits of an introductory chapter so much information about the classification of sentences. The relations of clauses to

could be obtained from the short section dealing with this subject in the first chapter. A good variety of sentences is given throughout the book, but the graphic analyses do not seem to be of any special advantage and the wisdom of adding in an appendix a number of poems for analysis is questionable.

Among points of detail the following may be noticed: the terms, attributive verb, Preterit tense, mode (for mood) are not in common use and the classification of thought forms, such as progressive, potential, conditional, is confusing. In fact, the treatment of the verb generally seems to need unification.

The best feature of the book is its persistent endeavour to treat the study of grammar as the study of thought-relations and to a certain extent it does achieve this aim, but the innovations in the arrangement of the subject matter have no obvious justification for their introduction.

A. M.

*A New Primer of English Literature*, by T. G. Tucker and Walter Murdoch. (George Bell & Sons.)

As the study of English Literature gradually takes its rightful place in our schools and training colleges, primers of literature are bound to multiply and there is danger that the market may be flooded with unworthy or unsound textbooks. Happily the volume before us does not deserve those epithets, and it can be unreservedly recommended. Rigidly confining itself to the main currents of thought and the great names in literature it is happy both in what it includes and what it excludes. This task is no easy one when the whole story of our literature has to be told within the limits of 200 pages of not too closely packed print, but our authors have performed it successfully. In reading the first seven chapters, going down to the Elizabethan period, there are a few places here and there where some statements seem to need modifying, others to call for amplifying—the treatment of Anglo-Saxon Prose, of the two-fold influence of the *Romance of the Rose*, of Malory's *Morte d'Arthur* do not seem wholly adequate—but when we pass beyond this period the skill of our authors is beyond reproach. At times they are perhaps a trifle harsh in their judgments of 18th century poetry (Pope more especially) but they give a reason for the faith that is in them and their judgments may give the young student cause to think. In a notice of a book of this kind it

book the sections on the change from Romanticism to Classicism (§§87-9) and those on the Augustan prose-writers (§§104-7) perhaps deserve special mention. They are only typical, however, of the excellence of the book as a whole.

A. M.

*The Pronunciation of English*, by Daniel Jones, M.A. (Cambridge Press.)

This new volume on English phonetics is noteworthy for two features—its numerous diagrams and its attempt to bring within its purview the pronunciation not only of the standard speech, but also of its chief dialectal varieties. The diagrams can be unreservedly recommended: they make clear many points which often remain obscure to the beginner in phonetics. Some are of the usual type, but new ones are added, showing the positions of the tongue in the formation of the chief vowel sounds, and there are some valuable ones on intonation. It is a pity that the author fails to give any diagrams of sonority when discussing the formation of syllables. They alone can make a somewhat difficult point clear and easy.

The attempt to deal with pronunciations other than the standard one is of doubtful value in a book which is intentionally elementary in character. The generalisations—London dialect, Northern dialects, North Midland dialects, Southern dialects—are too broad and tend to make the matter seem a good deal simpler than it really is. This work can only be satisfactorily done by separate volumes treating of the different districts as a whole, volumes which would be able to show more clearly than this one can, the underlying unity of speech basis which will often explain a whole group of dialectal variations.

The increasing multiplication of text-books of phonetics is to be deprecated as it tends to obscure the fact that the only true basis of phonetic study is the personal contact between teacher and taught where each must observe for himself what happens in the formation of speech sounds. Too frequent use of text-books, however excellent they may be, will spoil the interest in phonetics as a living study and will defeat its own end.

A. M.

*Senior English Grammar*, based on Mason's English Grammars. Editor A. J. Ashton, M.A. (George Bell & Sons.)

This is an excellent and thorough revision of

after fifty years of discussion and constant revision of the methods of teaching English the present editor should be able in the main to follow the outline originally drawn up by Mason. Full advantage is taken of the possibilities of the modern press in presenting the matter in a systematic and clear fashion, and we are specially glad to see that Mason's long and elaborate notes with their excessively small type have been incorporated with the main text of the book.

The philological portions of the book have been thoroughly revised and brought up-to-date, but they err on the side of attempting too much. Such a discussion as that on pp. 140-1, dealing with the origin of the personal suffixes in verbs, is entirely out of place in any but a historical grammar pure and simple. Indeed it may be said that the book defeats its own end by its very completeness. The Old and Middle English forms (not to speak of Latin, Greek, French and German) quoted are so numerous that it would really be easier, and certainly much sounder, for the student to acquire this knowledge in connected form from special grammars of these languages. Acquiring them in Mason's way means for the majority merely the unintelligent cramming of a large number of isolated forms in unknown languages. The quotation of Latin, Greek, French and German forms may present no difficulty to "the highest classes of our secondary schools," but they are of no use to the majority of Training College students, while old and middle English forms are thrown away on both alike.

The book is excellent, but it is a little difficult to see exactly what class of students it will help.

A. M.

*The Status of the Alien*, by W. M. Davidson, M.A., D.Sc., D.C.L. (J. Ouseley, Ltd., 1909.)

Dr. Davidson (whom our readers will recognise as the Vice-Principal of Tottenham Training College) designs this outline to appeal to students of law, history and economics. It is the status of aliens in England with which he is mainly occupied. Their position he defines clearly and succinctly at the outset, and proceeds to illustrate it from statute and case law under such various aspects as rights of personal safety and freedom, right of the State to expel, rights of possession, of contract, of religion and so forth.

The treatment of the undesirable alien is a question of vital importance to any community; and this gives special significance to Dr. Davidson's record of the attitudes adopted

evolution in the treatment of aliens in the history of the world at large, Dr. Davidson does not concern himself. Yet one would gladly see a complementary volume which should authoritatively trace the position of the alien in the great civilisations of antiquity and at significant epochs. There is much, for example, that could be made instructive and even fascinating on themes like that of the "metic" at Athens or the stranger within the gates of Rome. There are also serious modern problems touching Chinese in the United States, Japanese in Australia, and Indians in South Africa.

The book ends with a brief excursion into comparative jurisprudence, which involves such interesting points as the *droit d'aubaine* whereby French kings claimed the property of a non-naturalized alien at death. We notice a few blemishes indicating that the proof-reading is not beyond reproach.

J. W. D.